Family Medicine Resident Objective Book

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Table of Contents

PURPOSE

The residency program in Family Medicine at Dalhousie University has undergone revisions to become a Triple C Competency Based Curriculum.

A number of steps have been taken in this process. There has been a complete revision of the program's **Curriculum Objectives**. The **field notes** have been revised and integrated with **In Training Assessment Reports (ITARs).**

This document will introduce these core elements of the program's curriculum. It will also give you information on:

- CanMEDS FM;
- The structure of the Academic Curriculum;
- Guidelines around the Resident Project.

RESPONSIBILITY

Resident: To review the relevant objectives prior to each clinical learning experience and determine with the supervisor what can and should be achieved.

Supervisor/Preceptor: To review the relevant objectives prior to each clinical learning experience and determine with the resident what can and should be achieved.

Site and Program: To ensure that each site provides the learning opportunities and structured evaluation stated in this document.

PREAMBLE TO THE CURRICULUM DOCUMENT FOR RESIDENTS

The delivery of the Dalhousie Family Medicine Residency Program is based on the provision of both strong clinical experiences and a focused academic curriculum. This delivery is grounded in the Four Principles of Family Medicine[1] and structured around the CanMEDS FM 2017 roles as developed by the CFPC National Working Group on the Postgraduate Curriculum. In this framework, the Family Medicine Expert integrates the competencies included in the roles of Communicator, Collaborator, Manager, Health Advocate, Scholar and Professional.

The CFPC Evaluation Objectives is the other document that has a major influence on the curriculum. It incorporates the Phases of the Clinical Encounter, the Skill Dimensions, the Priority Topics with their Key Features, and the Themes of Communication and Professionalism with their Observable Behaviours.

It is important to differentiate *curriculum objectives* and *assessment objectives*. It is the curriculum objectives that define the broad knowledge base that is required for residents to gain over the training program. It is the assessment objectives that form the basis of assessment of competency in a *sampling* of these areas. Thus it is appropriate that the Priority Topics drive our curriculum to a certain extent, but residents are expected to know more than what is included in the Key Features under each Priority Topic. Key Features are considered when planning the objectives of every seminar.

Residents are assessed on their participation and presentation in seminars and workshops, as well as in many other facets of the program. Please see the Bi-Annual Review document for a full list. Much of the assessment is accomplished in real clinical situations based on the clinical objectives in each clinical learning experience - this is known as workplace-based assessment (WBA). We focus on assessment *for* learning as well as assessment *of* learning. This means that we use all assessment tools to stimulate your learning and to see how you are doing at the same time. Documentation of the in-training assessment occurs with the use of Field Notes - which provide a narrative of what went well, with suggestions for improvement, with common reflection on multiple encounters from multiple observers. This information is summarized later to help populate the In-Training Assessment Reports (ITARs) for each clinical learning experience. Your preceptor will help you create a personalized learning plan with the completion of each Narrative ITAR. This and other information, and with some of your reflections, will be used twice per year by your Site Director (or their designate) to complete the Bi-Annual Resident Performance Review. A learning plan will also be developed to stimulate your learning and to help you achieve competence as quickly and efficiently as possible.

[1] 1) The Family Physician is a skilled clinician

2) The Family Physician is community-based

3) The Family Physician is a resource to a defined community

4) The doctor-patient relationship is central to the role of Family Physician

THE TRIPLE C COMPETENCY-BASED CURRICULUM

The Dalhousie Family Medicine academic curriculum was extensively re-organized in 2013 and again in 2018. This reflected the national movement of all post-graduate Family Medicine Residency Programs to adopt the CFPC's Triple C competency-based curriculum.

The curriculum objectives are divided into the 7 CanMEDS-FM 2017 Roles:

- Family Medicine Expert
- Communicator
- Collaborator
- Leader
- Health Advocate
- Scholar
- Professional

Within each role the structure (headings and sub-headings) reflects the CanMEDS-FM enabling competencies. Each heading is written in language that emphasizes that it is the program's responsibility to provide a learning opportunity to the resident to accomplish the following objectives. The implication, of course, is that it is the residents' responsibility to avail themselves of the opportunity.

At the level of individual objectives, each objective is written in a competency-based manner. That is, completion of a certain clinical learning experience or having a certain clinical experience is no longer the goal. The goal is to achieve the clearly stated desired outcome.

In addition, wherever possible, the objective will reference the applicable Priority Topic/Key Feature (developed by the CFPC National Working Group on Certification). This will be indicated by a bracketed reference (e.g. Elderly 2 would obviously reference the second Key Feature in the Priority Topic: Elderly)

Family Medicine Expert

The learning environment will provide opportunities for residents to learn to:

1. Practice generalist medicine

1.1. Establish and maintain clinical knowledge, skills and attitudes required to meet the needs of adult patients.

1.1.1. address health promotion, screening and disease prevention, while considering racial, cultural and gender differences, in the areas of:

1.1.1.1. Well Adult Care

1.1.1.1.1. Do a periodic health assessment in a proactive or opportunistic manner (Periodic Health Assessment/Screening 1).

1.1.1.1.2. Selectively adapt the periodic health examination to that patient's specific circumstances (Periodic Health Assessment/Screening 2).

1.1.1.1.3. Address lack of physical activity with a structured approach including assessment and exercise prescription.

1.1.1.1.4. Inquire about safe levels of alcohol consumption and screen for use of other substances.

1.1.1.2. Cardiovascular disease.

1.1.1.2.1. Treat modifiable risk factors in patients at risk of stroke and other cardiovascular disease and offer antithrombotic treatment in appropriate populations. (Ischemic Heart Disease 2)

1.1.1.2.2. Screen appropriate patients for hyperlipidemia. In patients with hyperlipidemia, establish target lipid levels, identify modifiable factors, give appropriate lifestyle advice, and periodically assess compliance (Hyperlipidemia 1-6).

1.1.1.3. Cancer

1.1.1.3.1. Be opportunistic in giving cancer prevention advice and apply the periodic health examination where indicated (Cancer 1, 2).

1.1.1.4. Dermatology

1.1.1.4.1. Be opportunistic discussing skin cancer prevention

1.1.1.5. Endocrinology

1.1.1.5.1. Screen appropriately for diabetes (Diabetes 1).

1.1.1.5.2. Screen for and diagnose obesity, establish readiness to change and address with motivational interviewing and follow-up. Advise about treatment options (Obesity 1, 5, 6).

1.1.1.6. Gastroenterology

1.1.1.6.1. Counsel patients at high risk for hepatitis; vaccinate and offer post-exposure prophylaxis appropriately (Hepatitis 7).

1.1.1.7. Infectious disease

1.1.1.7.1. Promote immunization as appropriate (Immunization 1-3)

1.1.1.8. Respirology

1.1.1.8.1. Take preventive measures in high-risk groups e.g. influenza and pneumococcal vaccination (Upper Respiratory Tract Infection 7; Chronic Obstructive Pulmonary Disease 5)

1.1.1.8.2. Regularly evaluate and document smoking status, continuously adopt a multiple strategy approach to facilitating smoking cessation (Smoking Cessation 1-3).

1.1.2. correctly diagnose and manage common problems in the following areas:

1.1.2.1. Allergy

1.1.2.1.1. Recognize potential allergic symptoms (skin, ophthalmologic, ENT, systemic) and manage using allergy testing, avoidance, pharmacotherapy, and desensitization where appropriate. (Allergy 2, 3, 4, 10)

1.1.2.1.2. Document allergies to medication, environment and food. (Allergy 1)

1.1.2.2. Behavioural Medicine/Mental Health

1.1.2.2.1. The family medicine resident will recognize and diagnose mental health problems commonly found in family practice including anxiety disorder (Anxiety 1-5), mood disorders (Depression 1-10), schizophrenia (Schizophrenia 1-8), personality disorders (Personality Disorder 1-5), post-traumatic stress disorder, phobic states, eating disorders (Eating Disorders 1-6), somatization disorders (Somatization 1-4), chronic pain syndromes and addiction (Substance Abuse 1-9). They will be able to:

1.1.2.2.1.1. Demonstrate familiarity with the DSM diagnostic criteria for these common disorders.

1.1.2.2.1.2. Demonstrate ability to appropriately screen for these disorders in high-risk groups.

1.1.2.2.1.3. Demonstrate ability to assess cognitive status with an appropriate instrument (MMSE or MOCA).

1.1.2.2.1.4. Take an appropriate history to generate differential diagnoses for symptoms, which also includes medical causes and contributors to rule out serious organic pathology.

1.1.2.2.1.5. Assess patient's suicide risk, homicide risk and judgment.

1.1.2.2.1.6. Identify comorbid psychiatric conditions.

1.1.2.2.1.7. Identify the functional impact of the symptoms to help guide and evaluate treatment.

1.1.2.2.1.8. The resident will develop a management plan and provide appropriate follow up for these disorders, including the ability to:

1.1.2.2.1.8.1. Offer appropriate treatment in a way that promotes full discussion of options and patient's own decision-making.

1.1.2.2.1.8.2. Use a multidisciplinary approach to treatment and management and refer appropriately.

1.1.2.2.1.8.3. Use a multifaceted approach to treatment.

1.1.2.2.1.8.4. Include psychosocial support as part of the treatment plan.

1.1.2.2.1.8.5. Demonstrate knowledge of indications, side effect profile, common interactions and monitoring requirements of psychopharmacological agents such as antidepressants, antianxiety medications, mood stabilizers, antipsychotics and other commonly used agents.

1.1.2.2.1.8.6. Demonstrate knowledge of different forms of therapy (including brief psychotherapy, couples and family therapy,

behavior therapy, long-term psychotherapy) and the selection of patients for each modality.

1.1.2.2.1.8.7. Demonstrate ability to skillfully and appropriately counsel for behaviour change using techniques of motivational interviewing (Counselling 1-3).

1.1.2.2.1.8.8. Monitor response to treatment using functional benchmarks, adjusting and augmenting as clinically indicated.

1.1.2.2.1.8.9. Diagnose and treat serious complications and side effects of medications.

1.1.2.2.2. Anticipate possible violent or aggressive behaviour and recognize the warning signs (Violent/Aggressive Patient 1).

1.1.2.2.3. Develop a plan within your practice environment to deal with patients who are verbally or physically aggressive (Violent/Aggressive Patient 1,4).

1.1.2.3. Cardiovascular Disorders

1.1.2.3.1. Take an adequate history to make a specific diagnosis of life-threatening conditions in the patient with chest pain and begin timely treatment. (Chest Pain 1, 2, 3, 5)

1.1.2.3.2. Have knowledge of the impact of valvular heart disease on long-term management including prognosis, appropriate medication and follow-up.

1.1.2.3.3. Screen for hypertension, measure blood pressure correctly, and make a diagnosis on multiple visits, and investigate appropriately to rule out secondary causes. Be able to treat hypertension with pharmacological means. For patients with the diagnosis of hypertension assess periodically for end-organ complications (Hypertension 1, 2, 3, 4, 7, 9).

1.1.2.3.4. Recognize and treat hypertensive crisis in timely fashion. Recognize need for workup for secondary hypertension (Hypertension 8).

1.1.2.3.5. Demonstrate the ability to diagnose ischemic heart disease that is classic or atypical, and develop a plan in collaboration with the patient to reduce modifiable risk factors. (Ischemic Heart Disease 1, 2)

1.1.2.3.6. Manage a patient with stable ischemic heart disease in a timely manner according to the severity of the disease, and coordinate appropriate follow-up (Ischemic Heart Disease 4, 5).

1.1.2.3.7. Assess a patient who presents with a painful or swollen leg in terms of his/her risk for ischemic vascular disease or DVT, investigate appropriately and be aware of treatment options including outpatient management of DVT (Deep Vein Thrombosis 1, 2, 4, 5).

1.1.2.3.8. Assess cardiovascular function, determine the underlying cause, and appropriately treat patients with heart failure (systolic and diastolic).

1.1.2.3.9. Have an approach to arrhythmia with emphasis on common arrhythmias such as Atrial Fibrillation and PVCs.

1.1.2.4. Cancer

1.1.2.4.1. Be aware of and actively inquire about side effects or expected complications of cancer treatment (Cancer 5).

1.1.2.4.2. Include recurrence or metastatic disease in the differential diagnosis in patients with a distant history of cancer who present with new symptoms (Cancer 6).

1.1.2.4.3. Know the management of common medical complications of patients with malignancy, including effusions, pathological fractures, hypercalcemia, neutropenia, and infections.

1.1.2.4.4. Know how to manage cancer pain, including the use of narcotics and co-analgesics (Palliative Care 4).

1.1.2.4.5. Understand the psychosocial issues facing cancer patients and how they might be addressed (Cancer 4).

1.1.2.5. Ears, Nose and Throat Disorders

1.1.2.5.1. Diagnose otitis media upon visualization of the TM and include pain referred from other sources in the differential diagnosis of an earache (e.g. Tooth abscess, trigeminal Neuralgia, TMJ dysfunction, pharyngitis, etc.). Treat otitis media in an evidence-based fashion (Earache 1, 2, 4, 5, 6).

1.1.2.5.2. Consider serious causes in the differential diagnosis of an ongoing earache (e.g. tumors, temporal arteritis, mastoiditis) (Earache 3).

1.1.2.5.3. Differentiate viral from bacterial sinusitis and bronchitis and appropriately prescribe antibiotics (Upper Respiratory Tract Infections 2,3).

1.1.2.5.4. Use an evidence-based approach to diagnosing pharyngitis; consider mononucleosis in investigating and managing patients with a sore throat (Upper Respiratory Tract Infection 6).

1.1.2.5.5. Demonstrate an approach to vertigo with knowledge of benign and serious causes (BPV, stroke, labyrinthitis) (Dizziness 1,2).

1.1.2.6. Endocrinology

1.1.2.6.1. Manage diabetes both in and out of hospital appropriately using lifestyle, oral agents, and insulin and provide patient and family education. Monitor for and manage complications (Diabetes 2,4,5).

1.1.2.6.2. Appropriately investigate and manage patients suspected with thyroid disease and limit testing for thyroid disease to patients with a significant pre-test probability of abnormal results. In patients with diagnosed hypothyroidism, check thyroid-stimulating hormone levels only at appropriate times (Thyroid 1, 2).

1.1.2.7. Gastrointestinal Disorders

1.1.2.7.1. Demonstrate the ability to diagnose and manage adult abdominal pain. Be able to distinguish between acute and chronic

abdominal pain, generate a differential diagnosis and order appropriate investigations in a timely manner (Abdominal Pain 1, 2).

1.1.2.7.2. Appropriately investigate and manage a patient presenting with upper or lower gastrointestinal bleeding (non-life threatening) (Gastrointestinal Bleed 1, 2, 4, 5, 6).

1.1.2.7.3. Identify patients at high risk of GI bleed and modify treatment appropriately (Gastrointestinal Bleed 3).

1.1.2.7.4. Recognize extra intestinal manifestations in a patient with a diagnosis of inflammatory bowel disease (IBD) (Abdominal Pain 8).

1.1.2.7.5. Include cardiac causes and other conditions as part of the differential diagnosis in patients presenting with dyspepsia and rule out serious conditions (Dyspepsia 1, 2, 3).

1.1.2.7.6. Diagnose and manage specific pathology commonly seen in primary care (e.g.. gastroesophageal reflux disease, peptic ulcer disease, ulcerative colitis, Crohn's disease, diverticulitis, pancreatitis, irritable bowel syndrome, biliary disease) (Abdominal Pain 2).

1.1.2.7.7. Establish a diagnosis (e.g. infectious, malabsorption, immune, irritable bowel) and develop a management plan given a patient with acute or chronic diarrhea (Diarrhea 1, 2, 3, 4, 6, 7).

1.1.2.7.8. Have an approach to diagnosis in a patient with abnormal liver enzymes differentiating hepatocellular and obstructive patterns (Hepatitis 1, 2).

1.1.2.7.9. Assess infectivity and HIV status in patients with Hepatitis B and C, counsel regarding harm reduction, and monitor for complications (Hepatitis 4, 9).

1.1.2.8. Haematologic Disorders

1.1.2.8.1. Investigate the cause of low hemoglobin and classify the types of anemia, assess the risk of decompensation of anemic patients, and determine the iron status and investigate the causes of iron deficiency if present (Anemia 1, 2, 3, 4, 8).

1.1.2.8.2. In patients with macrocytic anemia consider the possibility of a vitamin B12 deficiency and look for other manifestations of the deficiency (e.g. neurologic symptoms)(Anemia 6).

1.1.2.8.3. Demonstrate some knowledge of common hematological malignancy (leukemia, lymphoma, myeloma) including the presenting symptoms, investigations and basic management.

1.1.2.8.4. Be able to investigate and manage a patient presenting with a bleeding disorder, or an acute coagulopathy (warfarin overdose, liver disease, sepsis, etc.)

1.1.2.9. Infectious Disease

1.1.2.9.1. Demonstrate an awareness of serious and common causes of fever. Investigate patients with fever of unknown origin appropriately and treat fever resulting from serious causes in a timely fashion (e.g. meningitis) (Fever 4, 5, 6).

1.1.2.9.2. Recognize and triage serious infection (pyelonephritis, cellulitis, meningitis, osteomyelitis, sepsis, pneumonia) including antibiotic choice based on the patient's individual risk factors and a decision about hospital admission (Infections 2, 3, 4).

1.1.2.9.3. Use a selective approach in ordering cultures and make rational antibiotic choices in a timely fashion. In a febrile patient with a viral infection, do NOT prescribe antibiotics (Infections 1, 2; Fever 2, 3).

1.1.2.9.4. Recognize that infections in the elderly may present atypically (Fever 8).

1.1.2.10. Musculoskeletal

1.1.2.10.1. Use history and physical examination to rule out serious causes in a patient with low back or neck pain (Low-back Pain 1; Neck Pain 1, 2).

1.1.2.10.2. Use conservative management for back and neck pain including exercise, posture, and pain medication when necessary (Low-back pain 2, 3, 5; Neck Pain 3).

1.1.2.11. Neurologic Disorders

1.1.2.11.1. Diagnose stroke and differentiate, if possible, hemorrhagic from embolic/thrombotic stroke and assess patients presenting with neurological deficits in a timely fashion to determine eligibility for thrombolysis (Stroke 2, 3)

1.1.2.11.2. Involve the patient, the family, and other professionals as needed in decisions about intervention in patients with stroke. Evaluate the resources and supports needed to improve function, and include prevention of complications of stroke. Provide realistic prognostic advice (Stroke 4, 5, 7).

1.1.2.11.3. Have an approach to diagnosis and management of the patient who presents with loss of consciousness, altered level of consciousness, or delirium, including recognition of reversible conditions (shock, hypoxia, hypoglycemia, drug overdose) (Loss of Consciousness 2, 3, 4, 5, 6, 8).

1.1.2.11.4. Differentiate delirium due to general medication from dementia, drug intoxication/withdrawal, and psychotic disorders (Dementia 2).

1.1.2.11.5. Distinguish between pre-syncope/syncope and vertigo in patients with dizziness, generate an appropriate differential diagnosis and rule out serious conditions, review medications, and investigate appropriately.

1.1.2.11.6. Differentiate different types of tremors, i.e. resting tremor, intention tremor (Parkinsonism 4).

1.1.2.11.7. Accurately distinguish between idiopathic and atypical Parkinson's disease, involve other health care professionals to enhance the patient's functional status, assess and anticipate side effects of anti-Parkinson medications, and look for other coexisting conditions (Parkisonism 1, 5, 6)

1.1.2.11.8. Be able to recognize and appropriately investigate benign versus life-threatening causes of headaches (trauma, subarachnoid hemorrhage, meningitis) (Headache 1, 2).

1.1.2.11.9. Diagnose and manage the common causes of headaches (e.g. migraine, tension, cluster) (Headache 3, 5).

1.1.2.12. Ophthalmologic Disorders

1.1.2.12.1. Distinguish serious from non-serious causes of a red eye always using a Snellen chart for visual acuity as well as fluorescein when necessary. Consider underlying systemic causes, when the diagnosis is iritis (Red Eye 1, 2, 9).

1.1.2.12.2. Distinguish allergic, viral and bacterial conjunctivitis and provide pseudomonas coverage for those with bacterial conjunctivitis using contact lenses (Red Eye 6, 7).

1.1.2.12.3. Diagnose and manage other common eye lesions such as hordeolum, chalazion, pterygium, pingueculum.

1.1.2.13. Renal and Urologic

1.1.2.13.1. Have an approach to patients presenting with dysuria, identify high-risk patients (DM, underlying renal disease) investigate for UTI, STIs, prostatitis, vaginitis, etc. when appropriate and manage (Dysuria 1, 2, 3, 4).

1.1.2.13.2. Have an approach to acute renal failure, including underlying cause, understand acute and chronic management and monitoring for complications.

1.1.2.13.3. Understand presentation, investigations and management (medical and surgical) or renal calculi.

1.1.2.14. Respirology

1.1.2.14.1. Include asthma and COPD as part of the differential diagnosis in a patient with respiratory symptoms (Asthma 1; Chronic Obstructive Pulmonary Disease 1)

1.1.2.14.2. Objectively determine the severity of asthma or COPD (i.e. pulmonary function testing), and manage acute exacerbations appropriately including assessment for hospitalization (Asthma 4; Chronic Obstructive Pulmonary Disease 2, 3, 8).

1.1.2.14.3. Effectively use monitoring, pharmacotherapy and lifestyle change to manage COPD and asthma (Asthma 5, 6; Chronic Obstructive Pulmonary Disease 4, 6, 7).

1.1.2.14.4. Generate a broad differential diagnosis for cough (i.e. GERD, asthma, rhinitis, presence of a foreign body, medications, malignancy, pertussis) in patients with an acute, persistent or recurrent cough (Cough 1, 3).

1.1.2.14.5. Assess the patient with pneumonia with regard to: risks for unusual pathogens, underlying neoplasia, identification of the appropriate patient population for hospitalization, rational antibiotic choices and arranging contact tracing where appropriate (Pneumonia 3, 5, 7, 11).

1.1.2.15. Rheumatologic

1.1.2.15.1. For patient presenting with joint pain, distinguish benign from serious pathology, using history and investigating appropriately (Joint Disorder 1)

1.1.2.15.2. Have an approach to patients presenting with non-specific MSK complaints, to make the diagnosis of rheumatologic conditions, fibromyalgia, soft tissue injury and consider sources of referred pain (Joint Disorder 2, 4).

1.1.2.15.3. Identify non-articular symptoms of rheumatic disease (Joint Disorder 8).

1.1.2.15.4. In patients experiencing musculoskeletal pain actively inquire about the impact of the pain, treat with appropriate analgesics and consider aids and community resources (Joint Disorder 9).

1.1.2.16. Skin Disorders

1.1.2.16.1. Distinguish benign from serious pathology (e.g. Melanoma, pemphigus, cutaneous T-cell lymphoma) by physical examination and appropriate investigations (e.g. Biopsy or excision) (Skin Disorder 2).

1.1.2.16.2. Understand the cutaneous manifestations of systemic disease and be able to diagnose using history, physical and appropriate investigations (Skin Disorder 3).

1.1.2.16.3. Have an approach to diagnosis and management of other common primary care dermatologic problems such as eczema, acne, skin infections (viral, bacterial, fungal, parasitic), psoriasis, allergic/contact conditions, skin ulcers (vascular, pressure).

1.1.2.17. Undifferentiated and/or multiple

1.1.2.17.1. Investigate and manage weakness appropriately, differentiating generalized and specific weakness and identifying neurologic and other causes.

1.1.2.17.2. Assess all spheres of function in a disabled patient and offer a multifaceted approach (rehabilitation, community support, lifestyle modification) (Disability 4, 5).

1.1.2.17.3. In patients presenting with multiple medical problems take an appropriate history and prioritize to develop a mutually agreed agenda (Multiple Medical Problems 1, 2).

1.1.2.17.4. In patients complaining of fatigue consider depression, adverse effects of medication and other medical causes (Fatigue 1, 2, 3).

1.2. Establish and maintain clinical knowledge, skills and attitudes required to meet the needs of elderly patients.

1.2.1. Discuss the aging process and the implications of the biological changes associated with aging, the concepts of successful aging and the importance of a comprehensive approach to care.

1.2.2. Focus on key determinants of health and their interrelationships in the elderly (eg. biological, psychological, socioeconomic).

1.2.3. Differentiate between normal changes of aging and those changes that are pathological

1.2.4. Describe the developmental challenges faced by the older person (e.g. dealing with loss, coping with chronic disease).

1.2.5. Demonstrate a functional approach to history taking and treatment

planning.

1.2.5.1. Discuss the functional impact of illness in elderly patients including:

1.2.5.1.1. Diagnoses often correlate poorly with function.

1.2.5.1.2. Functional impairment may be a first sign of illness (Elderly 4).

1.2.5.2. Describe and be able to assess the concepts of Basic Activities of Daily Living (BADL's) and Instrumental Activities of Daily Living (IADL's).

1.2.5.3. Use functional assessment tools such as the Katz ADL Index and incorporate this information into a comprehensive geriatric assessment including:

1.2.5.3.1. Physical Health

1.2.5.3.2. Mental Health including cognitive status and competency

1.2.5.3.3. Socioeconomic status

1.2.5.3.4. Environmental factors

1.2.5.3.5. Level of Care

1.2.5.3.6. Belief system

1.2.5.4. Use functional rating scales in clinical situations

1.2.6. Include an assessment of social support available to the elderly patient.

1.2.7. Obtain corroborative information where appropriate from families or caregivers.

1.2.8. Perform a comprehensive geriatric assessment including:

1.2.8.1.1. Identify the patient's problems using a comprehensive patient problem list

1.2.8.1.2. Establish the patient's diagnosis(es)

1.2.8.1.3. Identify the patient's problem(s) associated with the diagnosis(es)

1.2.8.1.4. Rank the impact and importance of the problem

1.2.8.1.5. Be able to deal with multiple interacting problems

1.2.8.1.6. Identify the patient's perspective

1.2.8.1.7. Establish realistic goals

1.2.9. Recognize and describe the non-specific presentation of the disease in the elderly (Elderly 5).

1.2.10. Demonstrate the ability to adapt their interviewing techniques to enable elderly people to understand and communicate with the resident.

1.2.11. Establish the expectations of the elderly person and reach common ground with regards to goals for management.

1.2.12. Help a patient establish and document their advance directives.

1.2.13. Describe the role and impact of the family or caregiver on the care of the elderly and be able to effectively recognize and manage problems that caregivers might encounter.

1.2.13.1. Describe the importance of corroborative information in providing effective care for elderly patients.

1.2.13.2. Discuss family dynamics (roles, conflict, role reversal) and their impact on the care provided to elderly patients.

1.2.13.3. Describe signs of caregiver stress and fully assess caregiver needs.

1.2.13.4. Manage and participate in family care conferences to see the value of information sharing, assessment of family supports and the opportunity to provide education and comfort to families in need.

1.2.14. Discuss the major geriatric clinical problem areas:

1.2.14.1. Confusion or memory failure
1.2.14.2. Falling or postural instability
1.2.14.3. Reduced mobility
1.2.14.4. Incontinence of urine
1.2.14.5. Constipation and fecal incontinence
1.2.14.6. Difficulties in activities of daily living

1.2.15. Safely prescribe medications to elderly patients taking into account the following issues:
1.2.15.1. The pharmacodynamic and pharmacokinetic properties of commonly used medications in the elderly (e.g. antidepressants, beta blockers, oral hypoglycemics, NSAIDs, diuretics).
1.2.15.2. A safe approach to drug dosing in the elderly, including required adjustments in renal impairment.
1.2.15.3. The importance of drug monitoring, as well as strategies for enhancing treatment adherence.
1.2.15.4. The dangers of polypharmacy in the elderly and learn to effectively monitor for hazardous drug- drug interactions as well as adverse drug reactions (Elderly 1).
1.2.15.5. The need to safely stop commonly used drugs and monitor for signs of withdrawal (e.g. SSRIs, benzodiazepines).
1.2.15.6. The need to choose drugs within a class that offer the best balance between therapeutic benefit and adverse effects
1.2.15.7. The importance of using non-pharmacological alternatives to drug therapy in the elderly wherever appropriate.
1.2.15.8. The over-the-counter drugs the patient may be using (Elderly 2)
1.2.15.9. The potential for substance abuse

1.2.16. Undertake a Cognitive Assessment including:
1.2.16.1. Recognizing signs of declining cognitive function in elderly individuals, such as poor hygiene, memory complaints from patients of their family members and difficulty with IADLs such as banking and meal preparation.
1.2.16.2. The use of cognitive assessment tools in appropriate situations and recognize their limitations in assessing cognition.

1.2.17. Undertake a Competency Assessment
1.2.17.1. Describe the fundamental aspects of a competency assessment (e.g. Medical competence, financial competence, housing competence).
1.2.17.2. Describe the laws pertaining to competence (e.g. POA, Public Guardian and Trusteeship, the Mental Health Act).
1.2.17.3. Identify impaired and intact decision-making abilities as some may be retained in a given individual.

1.3. Establish and maintain clinical knowledge, skills and attitudes required to meet the needs of children and adolescents.

1.3.1. Behavioural Issues:
1.3.1.1. Evaluate and manage excessive crying and colic in infancy.
1.3.1.2. Evaluate and manage feeding problems in infancy and food-related behavioural issues in childhood.
1.3.1.3. Evaluate and manage bed wetting on an age-appropriate basis.

1.3.1.4. Recognize, diagnose using appropriate clinical tools, refer and collaboratively manage Attention Deficit/Hyperactivity Disorder (Behavioural Problems 1-3).

1.3.2. Cardiovascular disorders:

1.3.2.1. Distinguish innocent and abnormal cardiac murmurs.

1.3.3. Ear, nose and throat disorders: Diagnose, manage and refer when appropriate the following conditions: otitis externa, otitis media (Earache 1,4,7,8), sinusitis and pharyngitis (Upper Respiratory Tract Infection 2-4,6).

1.3.4. Gastrointestinal Disorders: Diagnose and manage chronic GI conditions - constipation, chronic diarrhea, gastroesophageal reflux, lactose intolerance, chronic abdominal pain.

1.3.5. Infectious Disease: Demonstrate knowledge of reportable diseases and parameters for interim exclusion from school and recreational activities.

1.3.6. Musculoskeletal Disorders:

1.3.6.1. Evaluate and manage a child presenting with limp, intoeing, alignment abnormalities/scoliosis, joint instability, swelling or pain.

1.3.6.2. Evaluate fractures involving the growth plate and fractures/dislocations more common in children.

1.3.7. Neurologic Disorders:

1.3.7.1. Diagnose and manage common headaches in children.

1.3.7.2. Distinguish simple from complex febrile seizures and investigate/manage appropriately.

1.3.8. Psychiatric Disorders: Recognize the high prevalence of eating disorders in adolescents and manage appropriately (Eating Disorders 1).

1.3.9. Respiratory Disorders: Diagnose and manage common respiratory conditions (e.g. croup, asthma)

1.3.10. Skin disorders: Recognize and manage common skin conditions (e.g. atopic dermatitis, acne, viral exanthems, candidiasis, impetigo, seborrheic dermatitis, and cellulitis).

1.3.11. Recognize early signs of less common but serious problems.

1.3.11.1. Recognize important rashes and investigate for possible serious underlying illness (petechiae, purpura, erythema nodosum, erythema migrans, café au lait spots).

1.3.11.2. Recognize potential anaphylaxis, educate parents and patients and prescribe Medicalerts and EpiPen appropriately (Allergy 9).

1.3.11.3. Evaluate severity of respiratory distress and manage respiratory emergencies (ex. epiglottitis, retropharyngeal abscess, anaphylaxis, foreign body aspiration, pneumonia, pneumothorax and status asthmaticus).

1.3.11.4. Recognize and evaluate precocious puberty and primary amenorrhea.

1.3.11.5. Recognize atypical presentations of common GI complaints (abdominal pain, vomiting, and constipation) that may suggest rare but serious complications.

1.3.11.6. Recognize the significance of dysmorphism, congenital anomalies or developmental delay and refer for assessment.

1.3.12. Employ case-finding as well as evidence-based surveillance and screening tools (e.g. Rourke Baby Record) to detect illness, deviation from normal growth and development and prevent injury (Wellbaby Care 1) and to provide

suggestions to encourage motor, language and social development (Well-baby Care 4).

1.3.13. Understand and be able to counsel parents about normal nutritional needs at different ages. Effectively monitor growth and suggest intervention as necessary (Well-baby Care 2).

1.3.14. Learn to administrate an organized vaccination program within family practice including routine vaccinations and those for travel and special populations. Discuss benefits, safety and side effects of vaccinations with parents (Well-baby care 2, 6; Immunization 1, 2, 4).

1.3.15. Provide education and advice on injury prevention and common behavioural and family issues.

1.3.16. When caring for adolescents, review and counsel about substance abuse, peer issues, home environment, diet/eating disorders, academic performance, social stress/mental illness and sexuality/STDs/contraception.

1.3.17. Have an approach to obesity in childhood including guidance on exercise and diet (Obesity 7, 8)

1.4. Establish and maintain clinical knowledge, skills and attitudes required in maternal and newborn care.

1.4.1. Diagnose and manage complications of early pregnancy (threatened & inevitable abortion, ectopic pregnancy, trophoblastic disease).

1.4.2. Conduct a first prenatal visit, discuss the rationale for all tests, explain routine prenatal visits (Pregnancy 4).

1.4.3. Screen all pregnant women for abuse (Pregnancy 5).

1.4.4. Conduct a prenatal visit in the first, second, and third trimester including maternal and fetal high risk factors which influence prenatal morbidity and mortality.

1.4.5. Counsel a woman re indications and timing for ultrasound.

1.4.6. Counsel a healthy woman who is planning a pregnancy (Pregnancy 1).

1.4.7. Counsel women with specific risks (Pregnancy 1) including:

1.4.7.1. Women over 35 or with a family history of genetic abnormalities.

1.4.7.2. VBAC

1.4.7.3. Women with specific medical diseases (diabetes, hypertension, multiple sclerosis, inflammatory bowel disease, etc.) during pregnancy.

1.4.7.4. Women with a poor past obstetrical history i.e. (preterm labour, 2nd trimester pregnancy loss).

1.4.8. Ask the woman and her partner open-ended questions about feelings, worries, expectations at routine visits, prenatally, intra-partum and post-partum.

1.4.9. Counsel a woman in the third trimester on the use of analgesia, anaesthesia in labour, effects on the mother and fetus.

1.4.10. Counsel a woman regarding expectations for labour and delivery: ambulation, different positions for delivery, early mother-infant contact.

1.4.11. Counsel a woman regarding the potential for operative intervention such as forceps, caesarean section.

1.4.12. Manage common pregnancy symptoms.

1.4.13. Counsel a woman regarding signs of labour.

1.4.14. Take a detailed history on a new patient presenting in labour.

1.4.15. Describe normal rate of progress in nulliparous and multiparous patients.

1.4.16. Describe indications for induction or augmentation of labour (Pregnancy 8).

1.4.17. Describe indications for continuous electronic fetal monitoring.
1.4.18. Manage a normal labour.
1.4.19. Demonstrate ability to interpret fetal heart rate patterns.
1.4.20. Describe the indications, risks, and prerequisites for low forceps, vacuum extraction
1.4.21. Inform the woman and her partner about common positive and negative emotional experiences during and after pregnancy, such as body image, sexuality, ambivalent feelings about pregnancy and baby, fear of abnormalities, "baby blues," intense attachment to baby, etc.
1.4.22. Discuss emotional and organizational preparation for the baby.
1.4.23. Discuss parenting with the woman and her partner including their own experiences growing up, their expectations/philosophy of raising children.
1.4.24. Discuss benefits to mother & baby of breastfeeding; explore the woman's and her partner's feelings and concerns about breastfeeding at least twice during the pregnancy.
1.4.25. Discuss circumcision
1.4.26. Counsel a breastfeeding mother regarding initiation of breast feeding.
1.4.27. Diagnose and manage common breastfeeding problems (i.e. sore nipples, engorgement, "not enough milk", difficulties latching on).
1.4.28. Counsel a woman and her partner regarding normal neonatal/post- partum course prior to discharge from hospital including the normal sequence of the attachment process.
1.4.29. Perform a 6-week post-partum exam.
1.4.30. Diagnose and manage endometritis, subinvolution, infected episiotomy (Pregnancy 10).
1.4.31. Counsel a mother post C-section (e.g., activity, resuming intercourse, etc.).
1.4.32. Independently examine a newborn and recognize variants of normal (Newborn 1).
1.4.33. Provide normal newborn care.
1.4.34. Describe current neonatal screening programs.
1.4.35. Recognize congenital anomalies and abnormalities, such as Down's Syndrome.
1.4.36. Diagnose and manage common neonatal diseases and conditions.
1.4.36.1. Jaundice
1.4.36.2. Sepsis
1.4.36.3. Murmurs
1.4.36.4. Hypoglycemia
1.4.36.5. Respiratory distress
1.4.36.6. Orthopedic abnormalities
1.4.36.7. IUGR
1.4.37. Manage the issues surrounding the care of newborns of mothers with medical/non-medical conditions (i.e. diabetes, drug abuse, auto-immune diseases, medication use, social issues, AIDS, etc.). 9.12.
1.4.38. 9.13. Describe the nutritional needs and normal growth pattern in the first weeks following birth for premature and full term infants.

1.5. Establish and maintain clinical knowledge, skills and attitudes required in the area of global health and care of the vulnerable and underserviced:

1.5.1. concerning basic travel medicine (Travel Medicine 1-8):

1.5.1.1. To advise a patient on appropriate immunizations prior to overseas travel.

1.5.1.2. To make recommendations concerning malaria prophylaxis, and other health precautions including those around potable water and traveler's diarrhea.

1.5.1.3. To demonstrate an approach to the management of fever in the returning traveler.

1.5.2. concerning the health of immigrants to Canada (Immigrants 1-6):

1.5.2.1. To demonstrate awareness of overseas screening for immigrants and refugees to Canada.

1.5.2.2. To apply appropriate screening recommendations, including assessment of vaccination status and updates as appropriate, for newly arrived landed immigrants.

1.5.2.3. To inquire and maintain openness to the use of alternative healers, practices and medications.

1.5.2.4. To demonstrate a knowledge of the demographics of new immigrants to Canada.

1.5.2.5. To demonstrate an approach to finding information on diseases less commonly seen in Canada.

1.5.3. acquire knowledge of the epidemiology of different underserviced and vulnerable groups in Canada, including aboriginal populations, inner-city/homeless populations and Persons with Developmental Disabilities (PWDD) including:

1.5.3.1. To demonstrate knowledge of the epidemiology of aboriginal health issues, including diabetes mellitus, metabolic syndrome, substance abuse and domestic violence.

1.5.3.2. To describe key differences between aboriginal communities on and off reserves, including issues of inadequate housing and unclean water supply.

1.5.3.3. To demonstrate knowledge of the epidemiology of inner-city populations, including mental health concerns, substance abuse, impact of homelessness, lack of preventative medical care.

1.5.3.4. To demonstrate knowledge of the unique health and social challenges faced by PWDD

1.5.4. be familiar with basic global burden of disease, including the major causes of mortality worldwide:

1.5.4.1. To demonstrate a basic clinical and epidemiological knowledge of diarrheal disease, HIV, malaria and tuberculosis.

1.5.4.2. To demonstrate a basic understanding of the impact on health of individuals of migration, forced displacement, war and armed conflict.

1.6. Establish and maintain clinical knowledge, skills and attitudes required in Men's health care.

1.6.1. Be aware of men's less frequent access of the health care system and thus the need to make efficient use of the visits that do occur.

1.6.2. Sexual Health

1.6.2.1. Exhibit sensitivity in dealing with issues of sexual dysfunction and inclusiveness with regards to sexual orientation.

1.6.2.2. Discuss men's role in Sexually Transmitted Infection prevention, contraception and responsible fathering.
1.6.2.3. Appropriately recognize and manage reproductive tract infections and problems:
1.6.2.3.1. Sexually transmitted infections (Sexually Transmitted Infections 1-8)
1.6.2.3.2. Urethritis
1.6.2.3.3. Epididymitis
1.6.2.3.4. Orchitis
1.6.2.3.5. Prostatitis
1.6.2.3.6. Benign prostatic hypertrophy (Prostate 6).
1.6.2.3.7. Penile anomalies
1.6.2.3.8. Scrotal and testicular abnormalities
1.6.2.3.9. Genital trauma
1.6.2.3.10. Erectile and ejaculatory dysfunctions
1.6.2.4. Appropriately screen for, manage and refer neoplastic disease of the male genital tract.
1.6.2.4.1. Penile carcinoma
1.6.2.4.2. Testicular carcinoma
1.6.2.4.3. Prostatic carcinoma (Prostate 1-5)

1.7. Establish and maintain clinical knowledge, skills and attitudes required in palliative care.

1.7.1. Assess and manage pain and symptoms effectively through history, appropriate physical exam and relevant investigations (Palliative Care 4).
1.7.1.1. Demonstrate knowledge of classification and neurophysiology of pain.
1.7.1.2. Prescribe opioids effectively including initiating dosage, titration, breakthrough dosing, prevention of side effects, monitoring, dose equivalency and opioid rotation.
1.7.1.3. Describe the clinical presentation of opioid neurotoxicity and be able to put a management plan in place to address the problem.
1.7.1.4. Prescribe adjuvant modalities and medications for pain and symptom relief.
1.7.1.5. Be aware of non-pharmacologic strategies for pain and symptom management.
1.7.1.6. Develop and implement management plans for other symptoms including: A) fatigue; B) anorexia and cachexia; C) constipation; D) dyspnea; E) nausea and vomiting; F) delirium; G) skin and mouth care; H) anxiety and depression.
1.7.2. Monitor the efficacy of symptom management plans.
1.7.3. Review and adjust management plans to accommodate the changes that may occur as the end of life approaches (Palliative Care 5)
1.7.4. Describe a management plan for urgent/emergent problems in the palliative setting including spinal cord compression, hypercalcemia, superior vena cava syndrome and terminal agitation.
1.7.5. Distinguish between physician-assisted suicide, euthanasia and terminal sedation, and withholding and withdrawing therapy.
1.7.6. Demonstrate an understanding of the personal, family and social consequences of life-threatening illness (Palliative Care 3).

1.7.7. Demonstrate cultural, gender, religious and aboriginal sensitivity in addressing end-of-life care.
1.7.8. Demonstrate the ability to develop a management plan that appropriately balances disease-specific treatment and symptom management according to the individual needs of the patient and family.
1.7.9. Demonstrate the role of the family physician in assessing and managing grief in patients and families including normal and atypical grief (Grief 1-4).
1.7.10. Identify and assess spiritual issues in end-of-life care (Palliative Care 3).

1.8. Establish and maintain clinical knowledge, skills and attitudes required in Women's Health Care.

1.8.1. An awareness that many medical disorders manifest differently in women.
1.8.2. An awareness of the widespread and complex health effects of sexual abuse on women and resources available to assist affected women.
1.8.3. An awareness of effects on female patients regarding the public perception of women and body image.
1.8.4. Obtain a detailed reproductive health history as part of a well woman visit – including history of risk factors for STIs.
1.8.5. Counsel a woman regarding reproductive and contraceptive choices (Contraception 1,3).
1.8.6. Counsel a woman regarding safe sex practices (Sex 1, Sexually Transmitted Infections 1).
1.8.7. Diagnose and manage menstrual disorders, and irregularities throughout the life cycle.
1.8.8. Diagnose and manage infection/inflammation of the reproductive tract, and urinary tract, including STIs (Sexually Transmitted Infections 2,6,7; Vaginitis 1-3).
1.8.9. Diagnose and manage acute & chronic abdominal and pelvic pain, always considering pregnancy as a possible cause (Abdominal Pain 3).
1.8.10. Diagnose and initiate management of endometriosis
1.8.11. Diagnose and manage urinary incontinence & uterovaginal prolapse.
1.8.12. Screen for, detect and manage genital tract neoplasia (Cancer 2).
1.8.13. Diagnose and undertake initial management of infertility (Infertility 1-6).
1.8.14. Counsel a woman regarding normal physical, psychological changes to be expected at the menopause and options for their management (Menopause 1-8).
1.8.15. Counsel a woman with an unwanted pregnancy regarding the choices available to her (Pregnancy 3)
1.8.16. Identify and counsel women with eating disorders (Eating Disorders 2-6).
1.8.17. Diagnose and manage breast lumps in women (Breast Lump 2).
1.8.18. Counsel re recommendations and controversies of screening for breast cancer using clinical examination, self-examinations, and imaging and genetic testing (Breast Lump 1).
1.8.19. Refer and provide primary care follow-up for breast cancer patients (Breast Lump 30).
1.8.20. Initiate evaluation and treatment of victims of rape and sexual assault (including psychosocial and legal issues) (Rape/Sexual Assault 1-6).

2. Perform a patient centred clinical assessment and establish a management plan.

3. Plan and perform procedures and therapies for assessment and/or management.

3.1. Generally and in the care of adults:

3.1.1. Demonstrate the knowledge base required to effectively evaluate the indications for procedural and surgical procedures.

3.1.2. Demonstrate the ability to conduct a comprehensive pre-operative assessment and identify important peri-operative issues. This includes knowledge of testing required and indications for anaesthesia consultation.

3.1.3. Demonstrate awareness of the indications and contraindications of each procedure.

3.1.4. Demonstrate the ability to mentally rehearse the landmarks, technical steps and potential complications of each procedure.

3.1.5. Demonstrate knowledge of normal postoperative healing and the ability to identify and manage post- operative complications, i.e. infection, wound dehiscence, keloid formation.

3.1.6. Demonstrate the ability to act effectively as a surgical assistant for major surgical procedure

3.1.7. Skin Based Surgery:

- 3.1.7.1. Local anaesthetic infiltration and digital block
- 3.1.7.2. Abscess incision and drainage
- 3.1.7.3. Insertion of sutures--simple interrupted, vertical mattress, horizontal mattress and subcuticular
- 3.1.7.4. Laceration repair (suture and tissue adhesive)
- 3.1.7.5. Skin biopsy-shave, punch and excisional
- 3.1.7.6. Excision of cystic and solid lesions i.e. epidermoid cysts and lipomas
- 3.1.7.7. Cryotherapy
- 3.1.7.8. Removal of foreign body
- 3.1.7.9. Surgical management of ingrown toenail

3.1.8. Eye, ear, nose and throat procedural skills

- 3.1.8.1. Instillation of fluorescein
- 3.1.8.2. Slit lamp examination
- 3.1.8.3. Removal of corneal or conjunctival foreign body
- 3.1.8.4. Removal of cerumen
- 3.1.8.5. Removal of foreign body from nose or ear
- 3.1.8.6. Cautery for anterior epistaxis
- 3.1.8.7. Anterior nasal packing
- 3.1.8.8. Measurement of intraocular pressure

3.1.9. Gastrointestinal and genitourinary procedural skills

- 3.1.9.1. Anoscopy
- 3.1.9.2. Incision and drainage of a thrombosed external hemorrhoid
- 3.1.9.3. Cryotherapy or chemical therapy of genital warts
- 3.1.9.4. Aspirate breast cyst
- 3.1.9.5. Pap smear
- 3.1.9.6. Insertion and removal of an intrauterine device
- 3.1.9.7. Endometrial aspiration/biopsy

3.1.10. Musculoskeletal procedural skills

- 3.1.10.1. Splinting of injured extremities

3.1.10.2. Reduction of minor dislocations/subluxations i.e. pulled elbow, finger dislocations
3.1.10.3. Application of simple casts i.e. short arm cast, scaphoid cast, below knee walking cast
3.1.10.4. Aspiration and injection of knee joint
3.1.10.5. Aspiration and injection of the shoulder joint and subacromial bursa
3.1.10.6. Corticosteroid injection for epicondylitis or plantar fasciitis
3.1.10.7. Trigger point injection
3.1.10.8.

3.1.11. Resuscitative procedural skills
3.1.11.1. Intradermal, IV, IM and SC injections
3.1.11.2. Venipuncture
3.1.11.3. Peripheral intravenous line; adult and child
3.1.11.4. Oral airway insertion
3.1.11.5. Bag-valve-mask ventilation
3.1.11.6. Endotracheal intubation
3.1.11.7. Cardiac defibrillation
3.1.11.8. Lumbar puncture
3.1.11.9. Placement of transurethral catheter
3.1.11.10. Nasogastric tube insertion

3.2. In maternal and newborn care:

3.2.1. Judge uterine size in early pregnancy - differentiate 8, 10, 12 week size uterus.
3.2.2. Assess fetal presentation.
3.2.3. Auscultate fetal heart
3.2.4. Diagnose small-for-dates, large-for-dates
3.2.5. Assess a woman's breasts and nipples for potential problems with breast feeding
3.2.6. Skillfully perform a normal vaginal delivery
3.2.7. Repair second degree perineal tears
3.2.8. Recognize 3rd and 4th degree tears
3.2.9. Recognize indications for episiotomy
3.2.10. Do and repair an episiotomy
3.2.11. Do ARM (artificial rupture of membrane)
3.2.12. Apply scalp electrode
3.2.13. Use a vacuum extractor or low forceps for failure to progress in the second stage
3.2.14. Manage shoulder dystocia
3.2.15. Manage cord prolapsed, unexpected breech
3.2.16. Manage important complications of the third stage such as retained placenta and postpartum hemorrhage, uterine inversion
3.2.17. Recognize uterine rupture in VBAC
3.2.18. Assist at a caesarean section
3.2.19. Recognize and manage the adverse effects labour and delivery may have on full-term and preterm infants, i.e. asphyxia – (causes, prevention, detection, sequelae), trauma, drugs, especially analgesia and anaesthesia.

3.2.20. Describe the principles and procedures for neonatal resuscitation (Newborn 3) and perform a neonatal resuscitation, including bagging, insertion of ET tube (insertion of umbilical vein catheter is optional) (Newborn 3,4).

4. **Establish a plan for ongoing care and timely consultation when appropriate.**
5. **Actively facilitate continuous quality improvement for health care and patient safety, both individually and as part of a team.**
6. **Establish an inclusive and culturally safe practice environment.**
7. **Contribute generalist abilities to address complex, unmet patient or community needs and emerging health issues, demonstrating community-adaptive expertise.**

7.1. To recognize and appropriately manage acute, urgent and emergent presentations:

7.1.1. Awareness and management of anaphylaxis (Allergy 4,7,8,9)
7.1.2. Appropriate management of acute presentations of chest pain (Chest Pain 1,2,3,5)
7.1.3. Recognize and manage the acutely ill, new or diagnosed diabetic patient and manage appropriately, including management of hypoglycemia, DKA and hyperglycemia (Diabetes 3,6,7)
7.1.4. Recognize and manage potentially life-threatening upper respiratory presentations such as epiglottitis and retropharyngeal abscess (Upper Respiratory Infection 1).
7.1.5. Appropriate management of epistaxis (Epistaxis 1-7)
7.1.6. Appropriate management of poisoning including recognition of important toxidromes (Poisoning 2-7)
7.1.7. Appropriate investigation and management of the febrile patient (Fever 4-7).
7.1.8. Appropriate assessment, management and, if necessary, referral of patients presenting with potential fracture (Fractures 1-8), lacerations (Lacerations 1-7), bite wounds and burns.
7.1.9. Appropriate assessment, stabilization, management and referral of patients presenting with multiple or complicated trauma (Trauma 1-10).
7.1.10. Appropriate assessment, investigation and management of acute abdominal pain (Abdominal Pain 1, 4, 6) and GI bleed (Gastro-intestinal Bleed 1-6).
7.1.11. Appropriate first line management of common infections (Fever 2, 3; Infections 1-6).
7.1.12. Appropriate investigation and management of dehydration and electrolyte disturbances (Dehydration 2-5)
7.1.13. Appropriate investigation and management of delirium (Dementia 2) and loss of consciousness (Loss of Consciousness 1-11).
7.1.14. Appropriate assessment and management of new-onset headache (Headache 1,2)
7.1.15. Appropriate assessment, stabilization, investigation and management of an acute seizure episode (Seizures 1-4)
7.1.16. Appropriate recognition, assessment, management and referral of ophthalmologic emergencies (red eye (Red Eye 1-9), acute visual loss, trauma etc.)

7.2. To develop a comprehensive approach to Domestic Violence (Domestic Violence 1-4).

7.3. To develop a comprehensive approach to Sexual Assault (Sexual Assault (Rape/Sexual Assault 1-5).
7.4. To develop a compassionate and effective approach to patients in crisis (Crisis 1-11).
7.5. To develop a compassionate and effective approach to the Difficult Patient (Difficult Patient 1-8).
7.6. To develop a compassionate and effective approach to patient requests for Medical Assistance in Dying (MAID)
- 7.6.1. Understand the current ethical, legal and regulatory environment concerning MAID.
- 7.6.2. Understand and acknowledge the patient's request in the context of their experience of suffering and within the continuity of a palliative approach to end of life care.
- 7.6.3. Appropriate assessment of issues which may compromise patient autonomy (e.g. competence, depression).
- 7.6.4. Provide compassionate, non-judgmental support in their decision process.
- 7.6.5. When indicated, appropriately provide (or refer for provision) MAID according to accepted protocols.

Collaborator

The learning environment will provide opportunities for residents to:

1. **Work effectively with others in a collaborative team-based model for patient care generally and specifically to.**
   - 1.1. Collaborate in the care of the elderly through:
     - 1.1.1. Incorporating contributions from inter-professional team members into a thorough functional assessment.
     - 1.1.2. Recognize the role of the family physician as part of an inter-professional team in Long Term Care
   - 1.2. Collaborate in the care of vulnerable and underserviced populations by demonstrating an openness to and respect for appropriate communication with other professionals, including cultural interpreters and translators, legal aid workers, CAS workers, social workers, and members of other community support groups.
2. **Work collaboratively in different models of maternity care including team-based approaches.**
3. **Recognize and facilitate necessary transitions in care with other colleagues in the health professions, including but not limited to shared care, transfer of care and/or handover of care to enable continuity and safety.**

Communicator

The learning environment will provide opportunities for residents to:

1. **Develop rapport, trust and ethical therapeutic relationships with patients and their families.**
   - 1.1. develop the confidence and skills to manage routine patient encounters
   - 1.2. develop the confidence and skills to manage difficult or emotionally intense situations or interactions, including:
     - 1.2.1. When confronted with difficult patient interaction seek out information about patient's life circumstances, current context and functional status to better understand the patient's frame of reference.
     - 1.2.2. Identify own attitudes and beliefs, which may be contributing to the situation.
     - 1.2.3. Look for and attempt to limit the impact of personal feelings [e.g. anger, frustration] and remain vigilant for new symptoms and physical findings to be sure they receive adequate attention.
     - 1.2.4. Work towards establishing common ground and an atmosphere of safety and trust.
2. **Elicit and synthesize accurate and relevant information from, and perspectives of, patients and their families.**
3. **Share health care information and plans with patients and their families generally and in the following specific situations:**
   - 3.1. Communicate effectively with children including:
     - 3.1.1. Adapt communication methods based on the age of the child always attempting to maximize the child's participation in their medical care.
     - 3.1.2. Effectively evaluate the illness experience and influence on relationships for children and their families especially for children with chronic conditions or critical illness.
     - 3.1.3. Find common ground with children and adolescents as well as parents in managing medical or developmental issues cognizant of personal/cultural differences in parenting.
   - 3.2. Develop skill in the proper use of interpreters:
     - 3.2.1. To demonstrate the appropriate use of a medical interpreter in patient encounters.
     - 3.2.2. To demonstrate a working knowledge of the translation resources in the community.
   - 3.3. recognize the communication needs, both verbal and written, of patients who are illiterate, semi-literate or who are literate in a language other than English
     - 3.3.1. To constantly maintain awareness that a patient may not be able to read distributed materials, prescription information, etc. and to avoid putting the patient into an uncomfortable position with respect to his/her literacy.
     - 3.3.2. To provide materials appropriate to patient's literacy level and linguistic ability, when possible.
   - 3.4. Develop skills in the unique challenges of communication in palliative care situations:
     - 3.4.1. Demonstrate the ability to provide supportive counselling and resources to those coping with loss.
     - 3.4.2. Demonstrate the ability to discuss advance care planning, including developing, revising and implementing advance directives with patients and families.

4. **Engage patients and their families in developing plans that reflect the patient's health care needs, values and goals.**
   4.1. Develop a common understanding on issues, problems and plans with patients and their families in order to develop, provide and follow-up on a shared plan of care.
   4.2. Develop effective motivational interviewing skills in counseling patients around lifestyle issues and prevention of disease (Lifestyle 2-5).
5. **Document and share written and electronic information about the medical encounter to optimize clinical decision making, patient safety, confidentiality and privacy.**

Health Advocate

The learning environment will provide opportunities for residents to

1. **Respond to an individual patient's health needs by advocating with the patient within and beyond the clinical environment.**
   1.1. Recognize the role of Social Determinants of Health in the health of their patients and advocate with them as active partners for system-level change in a socially accountable manner.
   1.2. Identify patients who are vulnerable or marginalized and assist them in issues (e.g. housing, mobility, nutrition, access to financial resources etc.) that promote their health.
   1.3. Identify patients at risk because of social, family or other health situations; work appropriately with protective services when indicated.
2. **Act as a resource to their community, assess and respond to the needs of the community by advocating with them as active partners for system-level change in a socially accountable manner.**
   2.1. Demonstrate awareness of community resources to help patients in the community
   2.2. Learn principles and strategies for effective advocacy
   2.3. Become aware of important societal and geopolitical trends which will affect their patients' health such as climate change, global patterns of migration, economic globalization and patterns of income redistribution within Canada

Leader

The learning environment will provide opportunities for residents to:

1. **Contribute to the improvement of comprehensive, continuity-based, and patient-centred health care delivered in teams, organizations and systems.**
   - 1.1. Explore leadership roles and the skills required for these roles.
   - 1.2. Participate in activities that contribute to the effectiveness of their own program, primary practice, healthcare organizations and systems. Specifically:
     - 1.2.1. Participation in program, healthcare organization and/or community committees
     - 1.2.2. Become familiar with an effectively organized medical record
2. **Engage in stewardship of health care resources.**
   - 2.1. Recognize the need to balance the individual patient's concerns against the responsible use of public resources.
   - 2.2. Recognize the impact of high-resource vs. low-resource public health interventions on population health
3. **Demonstrate collaborative leadership in professional practice to enhance health care.**
4. **Manage career planning, finances, and health human resources in a practice including developing familiarity with:**
   - 4.1. Different methods of compensation
   - 4.2. Billing procedures and strategies
   - 4.3. Issues around commencing practice such as evaluating practice and locum opportunities, licensing, group versus solo practice, staffing issues, office equipment and layout
   - 4.4. Issues around personal and professional financial management such as accounting, tax planning, budgeting and debt management, insurance.

Professional

The learning environment will provide opportunities for residents to:

1. Demonstrate a commitment to patients through clinical excellence and high ethical standards.

1.1. Demonstrate appropriate respect for the patient's safety and dignity, in particular appropriate boundaries, chaperoning and draping.

1.2. Demonstrate commitment to the patient's good.

1.2.1. Understanding ethics as an integral part of every clinical encounter, not just when controversies arise.

1.2.2. Understand fundamental ethical principles of family medicine, including respect for patient dignity and beneficence-in-trust.

1.2.3. Understand and demonstrate specific professional qualities that stem from commitment to the good of their patients, such as effacement of self-interest, compassion, intellectual honesty, justice and prudence.

1.2.4. In cases where there is ethical conflict between physician and patient, be prepared to transfer care to another physician if appropriate.

1.3. Demonstrate ethical decision making and valid consent

1.3.1. A patient-centered approach to key ethical issues in clinical practice, such as informed consent, privacy/confidentiality, withholding and withdrawing medical interventions, surrogate decision making and advance directives.

1.3.2. An appreciation of their own roles and responsibilities in decision making as well as those of patients, and respectfully discuss and manage value differences and conflicts.

1.4. Demonstrate awareness of potential areas of conflict.

1.4.1. The issues of allocation of scarce resources, gatekeeper role and prioritization of need and how these relate to the duty to the patient.

1.4.2. Situations where there is an obligation to a third party that may conflict with the duty to the patient.

1.4.3. The issues that may arise in a physician's relationship with the pharmaceutical industry.

1.4.4. The unique issues and responsibilities around prescribing controlled drugs.

1.4.5. Set clear boundaries with respect to appointment length, prescribing practices and accessibility especially with those patients who have a personality disorder (Personality Disorder 1).

1.4.6. Take steps to end the physician-patient relationship when it is in a patient's best interests and do so according to accepted guidelines.

1.5. Demonstrate professional behaviour in the area of Patient Safety and Errors.

1.5.1. Develop an awareness for cognitive biases and other aspects of critical thinking and how they may play a role in patient safety and medical errors.

1.5.2. Develop and demonstrate skills in error/adverse event disclosure and apology.

1.5.3. Demonstrate awareness of the physician's role in prevention of iatrogenic infections and compliance with guidelines around hand washing.

2. Demonstrate a commitment to society by recognizing and responding to societal needs in health care.

2.1. Develop a sense of cultural humility and the skills of cultural competence which enable constructive, helpful and professional provision of medical care to members of different cultural and socioeconomic groups.

2.1.1. To demonstrate an awareness and sensitivity to the patient's culture, beliefs values, gender and age.

2.1.2. To define her or his own background, culture, beliefs, values and biases and the impact these may have on interactions with patients.

2.2. Develop an awareness of professional opportunities available to physicians interested in a career in Global Health in Canada (including in aboriginal populations, inner cities, and with immigrant and refugee populations) and overseas.

2.3. Become aware of the concept of health as a human right and demonstrate knowledge of the Canadian Charter of Rights and Freedoms and the Universal Declaration of Human Rights as they pertain to health.

3. Demonstrate a commitment to the profession by adhering to standards and participating in physician-led regulation.

3.1. Demonstrate awareness of obligations to report patients at risk of harm to themselves or others.

3.2. Demonstrate understanding of privacy legislation and physician confidentiality.

3.3. Demonstrate awareness of obligations to report situations of abuse or neglect concerning children, the elderly and other vulnerable populations.

3.4. Demonstrate sensitivity to potential ethical issues in their collaborative relationships with nonmedical colleagues, institutions, professional associations, government bodies, etc..

3.5. Contribute to the activities of professional associations locally, provincially and nationally.

4. Demonstrate a commitment to physician health and well-being to foster optimal patient care.

4.1. Demonstrate self-awareness and self-care while caring for their patients.

4.2. Display a commitment to personal health and balance between personal life and professional responsibilities.

5. Demonstrate a commitment to reflective practice.

5.1. Demonstrate a recognition of their own strengths and limitations and when to ask for help.

5.2. Demonstrate a mindful approach to practice by maintaining composure and equanimity, even in difficult situations, and by engaging in thoughtful dialogue about values and motives.

Scholar
The learning environment will provide opportunities for residents to:
1. Engage in the continuous enhancement of their professional activities through ongoing learning. 1.1. Develop evidence-based practices for the medical care of their patients 1.2. Maintain and enhance their professional activities through ongoing self-directed learning based on reflective practice. (Learning 6-8) **2. Teach students, residents, the public and other health care professionals.** **3. Integrate best available evidence into practice considering context, epidemiology of disease, comorbidity, and the complexity of patients.** 3.1. Critically evaluate medical evidence and apply this evidence in the care of their patients. 3.2. Develop skill at efficiently answering point of care questions using a variety of evidence-based strategies. **4. Contribute to the creation and dissemination of knowledge relevant to family medicine.** 4.1. Complete a research project and presenting it to their colleagues and department. 4.2. Participate in and conduct quality improvement activities.

CURRICULUM DELIVERY

One of the challenges with a distributed, multiple-site program such as Dalhousie's is that of delivering the curriculum at each site in a comprehensive and equitable manner. To accomplish this, the curriculum will be delivered using a variety of methods at each site. This will include, but not be limited to:

- Clinical Learning Experiences (both Family Medicine and other Specialty-based)
- Hospital/Department rounds
- Postgraduate Medical Education modules (PGME) both video conference and e-modules
- Academic Curriculum (both on-site and distributed)
- Problem-based Small Group Learning (PBSGL)
- The Annual Family Medicine Education Weekend

Some explanatory comments about the Academic Curriculum in particular are in order. The Academic Curriculum is a selection of clinical topics that have been deemed essential to present to residents in an academic manner. Each site will have different strategies to accomplish this (for example academic half days each week or academic days during core clinical learning experience). The Program Curriculum Committee has developed a list of topics (see below) that must be delivered at each site. In addition to these topics, each site has developed other topics, based on local interest and expertise.

MANDATORY ACADEMIC CURRICULUM TOPICS

Mandatory Academic Curriculum Topics 2020-2021	
Abdominal Pain: Office Approach	Immigrants
Abnormal Uterine Bleeding	Immunization/Public Health
Abortion Care	Indigenous Health
ADHD	Infertility
Adolescent Health	Inflammatory Bowel Disease
Advance Care Planning	Interaction with Industry
Allergies/Anaphylaxis	Ischemic Heart Disease
Anemia	LGBTQ Health
Antimicrobial Stewardship	Low Back Pain
Anxiety	MAID
Arrhythmia/Atrial Fibrillation	Medical Marijuana - Cannabinoids
Arthritis: OA/RA/Gout	Menopause
Asthma	Motivational Interviewing
Boundary Issues	Neck and Shoulder Pain
Breastfeeding and Feeding of Infants	Obesity and Weight Loss
Burnout	Occupational Medicine
Cerebrovascular Disease	Opioid Prescribing and Chronic Pain
Congestive Heart Failure	Osteoporosis
Competency Assessment	Periodic Health Screening
Concussion	Personality Disorders
Contraception	Poverty
COPD	Prostate Disease
Dementia	Post-Traumatic Stress Disorder
Depression	Quality Improvement/Patient Safety
Developmental Disabilities	Red Eye
Diabetes	Seizure Disorders
Diarrhea	Sexually Transmitted Infections
Dizziness	Skin Disorders
Dyspepsia, GERD, Gastritis and Peptic Ulcer Disease	Smoking Cessation
Ethics	Substance Abuse
Evidence Based Medicine	Thyroid Disease
Gastrointestinal Bleed	Ulcers and Wound Care
Headache	Vaginitis
Hypertension	Venous Thromboembolism

PORTFOLIOS

At the moment, the Dalhousie Residency does not require a formal learning portfolio. Evidence shows that reflection on clinical experience improves and deepens learning. We use the Bi-Annual Resident Performance Review (periodic review) to aid in this reflection. This process includes much of the data that would be in a portfolio. The Bi-annual Review involves resident reflection on their own, and with the Site Director, to develop individualized learning plans. Evidence shows that guided self-reflection is best at promoting growth. Residents may also choose to construct their own individualized learning portfolios. With this in mind, residents are encouraged to consider documenting their learning throughout the residency. Help and guidance are available for residents who are constructing a portfolio. Some of the portfolio can be documented through One45.

Examples of items that could be included in a portfolio:

Procedures completed
Conferences attended
Seminars presented – with evaluations
Clinical questions that have been researched
Chronic problems managed
Deliveries completed
Pregnant women followed
Learning plans
Self, peer or observer assessments
Chart notes
Letters from patients
Worksheets, checklists or logbooks of agreed upon activities
Notes from meetings between the resident and his/ her teachers
Samples of work demonstrating clinical competence
Evidence of self-assessment and self-reflection
Narratives describing personal experience and critical incidents
Copies of summative evaluations.

ASSESSMENT, EVALUATION and FEEDBACK

To ensure that residents are meeting curricular and program objectives, assessment of resident performance is conducted at regular intervals. The two main types of assessment are *formative* (providing timely feedback to help residents gauge their performance and take corrective action as necessary) and *summative* (ascertaining whether residents have met the stated objectives). The majority of assessment in the Dalhousie Family Medicine program is formative in nature.

Much formative feedback is delivered verbally during Clinical Learning Experiences (CLE). However, to help guide learning it is beneficial to document this feedback. In Family Medicine programs across the country, the documentation of feedback typically occurs on 'field notes.' These daily feedback forms, be in paper or electronic form, simply capture the output of the process of feedback that occurs between preceptor and resident.

Collected field notes help provide evidence of competence that is used to inform the program of your progress. Data collected on field notes is often used to back up statements of performance on your In-Training Assessment Reports (ITARs) that are completed for each of your rotations.

The remainder of this section summarizes the components of assessment and evaluation and is divided into the following:

If you have any questions about evaluation and assessment during residency, feel free to contact your site evaluation coordinator or the Chair of the Evaluation Sub-Committee, Dr. Keith Wilson (kwwilson@dal.ca).

Policy on the Evaluation Process

For a resident to successfully complete the Program and have their name submitted to the College of Family Physicians of Canada (CFPC), all of the following documentation must be in order:

- An In-Training Assessment Report (ITAR) for each CLE successfully completed:
    - In our integrated sites, a Family Medicine ITAR will be completed every two months in the first four months of residency then every three months throughout residency. These ITARs are to be populated by data from field notes from core family medicine preceptors and the consultant preceptors that provide longitudinal CLEs for the residents at these sites.
    - For block-based sites, ITARs will be completed for each rotation. Core Family Medicine rotations will have a mid-point and final ITAR populated by data from field notes.

- Evaluation of Service (EOS), Learner Assessment of Family Medicine Preceptor as well as Resident Assessment of Consultant Faculty for all CLEs.
- The resident must demonstrate and document appropriate progress towards competence to enter unsupervised practice. This progress will be assessed by a detailed Bi-Annual Review at a meeting between the resident and the Site Director (or the Site Directors' designate). Field notes will be a key component of this process, as they provide written documentation of performance and feedback in the clinical environment.

(For the complete Policy on the Evaluation Process see One45 Handouts and Links)

You will receive email notifications for all clinical learning experience assessments (mid-term, final and half-day back)

To log onto the electronic evaluation system, follow these steps:

- Go to: **www.med.dal.ca**
- Click on: One45 Web Eval (left side menu)
- You will receive an e-mail with your username and password and instructions on how to access the system once an evaluation has been sent out for you.

Evaluation of Service and Evaluation of Preceptor

According to University regulations your feedback on the Service and on your preceptor is mandatory for each clinical learning experience (CLE) you complete. You will receive a notice and forms electronically through One45. We require **both** an evaluation of service and an evaluation of the supervisor(s).

Field Notes

Feedback and assessments are essential to your education. Feedback is most effective when it occurs immediately after an encounter, and with coaching. We suggest that you and your preceptor complete **a field note for each half day of clinical experience**. This will give you a wealth of information on how to practice effectively and will encourage reflection and deeper learning on your part. You will be given a (prescription sized) pad of these forms. You may be asked to complete a certain number of these field notes per rotation depending on your site. However, it is most important to remember that the field note is simply **documentation of a process that is already taking place**: the feedback itself is the most important part.

In some sites this year, we are piloting electronic field notes. The same 'rules' apply in terms of expectations. If you are at a site that is piloting electronic field notes, please see the documentation provided at your site. We are hoping to expand the electronic field notes to all sites in the near future.

EASY TO FOLLOW INSTRUCTIONS FOR USING FIELD NOTES

This section explains the rationale for field notes as a method of evaluation, instructions for completing a field note and provides a sample field note.

What the process should deliver:

- During daily clinical work, encourage the gathering and documentation of case-specific comments and feedback with reflection and coaching from preceptors to residents.
- Consistency across the program, with properly documented feedback to stimulate improvement in competence:
    - based on performance through a wide spectrum of skills
    - linked to the CFPC Evaluation Objectives (key features and observable behaviours)
- A guide to teachers and learners, with evidence that competence is developing by:
    - helping inform ITARs, periodic reports, performance reviews, and resident's portfolio
    - acting as an aid memoir for periodic discussions on resident progress

On the selected clinical sessions:

- Observe an encounter, part of an encounter or simply discuss the case with the resident as close to the time of the encounter as possible (preferably the same day).
- It is very important that both the preceptor and the resident are engaged in the discussion reflecting on the clinical situation. This requires face-to-face dialogue, with input from both partners during completion. Often it is helpful to have the resident do some or all of the writing of the field note, noting the demographic information, the problem/situation discussed, and the feedback given. This facilitates guided self-reflection.
- Indicate on the note if a direct observation has been involved. We encourage residents and faculty to use direct observation wherever possible as it can elicit more meaningful, directed feedback.
- Use the "Guide to the CFPC Evaluation Objectives" found on the field note pad to choose **one** phase of the encounter and **one** competency of **one** skill to be discussed. This encourages specific feedback to reinforce the take home message.
- The responsibility to initiate the discussion should be shared between faculty and resident.

Important Background Information

Click here to go to the CFPC's Assessment Objectives for Certification in Family Medicine

Or go to www.cfpc.ca and look under "Home > Education & Professional Development > Educational Frameworks and Reference Guides > Assessment Objectives for Certification in Family Medicine" for the Assessment Objectives for Certification in Family Medicine and other tools.

Feedback: To Be Shared, Specific and Focused

- Ensure the resident starts the discussion with their impressions.
- Together develop positive statements **"continue"** with shared **"suggestions for improvement"**.
- Common reflection is an important part of the process and facilitates deeper learning.
- On selected occasions explore with the resident the pertinent Key Feature or Observable Behaviour from the CFPC Evaluation Objectives.
- Reinforce the take home message/**coaching point**. It is recommended to stick with one pertinent and actionable point.

Mid and End of Clinical Learning Experience

- Ensure direct observations/discussions have covered a variety of phases, skills and topics.
- Review your carbon copies of the field notes prior to or during assessment discussions and

ITAR completion with the resident. Then return them to the site administrator for storage in the resident file.

- The resident keeps the other copy for their file/portfolio to be used in discussion with their primary preceptor and/or Site Director for the ongoing demonstration of their progress towards competency.

Examples of Completed Field Notes:

Procedure: IUD Insertion; **Skill Dimension:** Procedural Skills; **Competency:** Informed Consent & Preparation; **Domains:** Office/Women's Health Care
Continue: Preceptor: "What do you think went well there? Resident: "I think the patient appreciated that I explained what was going to happen during the whole procedure."
Suggestions for improvement: Preceptor: "I usually try to plan for what I will need during the procedure and have it ready prior to starting."
Follow up: Preceptor: "Please always review our check list for IUD insertion while preparing for the procedure."

Phase: History**; Skill Dimension:** Communication; **Competency:** Non-Verbal; **Domain:** Office/Care of Adults
Continue: Resident: "As we discussed the last time I maintained good eye contact."
Suggestions for improvement: Preceptor: "I noticed you appeared to invade her personal space. If you try to stand back a little further it may improve your patient's comfort."
Follow up: Preceptor: "Perhaps we could video you this afternoon so you could see for yourself."

Problem: Ectopic Pregnancy; **Phase:** Investigation; **Skill Dimension**: Selectivity; **Competency:** Establishes Priorities; **Domain:** Emergency/Women's Health Care
Continue: Resident: "I identified the GYN/OBS history and the possibility of an ectopic pregnancy." Preceptor: "Well done! It was great you used the key features for abdominal pain to help with this."
Suggestions for improvement: Preceptor: "Perhaps the next step is to understand the urgency for immediate further investigation and treatment and how to arrange for that in our community."
Follow up: Preceptor: "Tomorrow morning after rounds lets discuss how to best use the ER and X-ray in urgent situations."

Problem: Multiple Medical Problems; **Phase:** Management & Treatment; **Skill Dimension:** Clinical Reasoning; **Competency:** Set Goals/ Objectives; **Domain:** Office/Care of the Elderly
Continue: Resident: "I dealt with most of the problems she presented to me getting her flow sheets for diabetes and hypertension done."
Suggestions for improvement: Preceptor: "Thanks for going back when I noticed your description about her frequent falls was more limited than some of the notes on other less critical problems. With a patient like this I try to identify all the presenting problems early then put aside the less important today to deal properly with the more critical."
Follow up: Preceptor: "I think the Key Features on Multiple Medical Problems may help, please review them for discussion with me tomorrow morning."

FIELD NOTE SAMPLE

Guide To The CFPC Evaluation Objectives
Phases Of The Clinical Encounter

A - History	D - Physical	G - Hypothesis
B - Diagnosis	E - Procedure	H - Investigation
C - Referral	F - Follow-Up	I - Management & Treatment

Selectivity
1. Appropriately Focused
2. Appropriately Thorough
3. Establishes Priorities
4. Urgent vs. Non-Urgent

Clinical Reasoning
5. Hypotheses / Diff. Dx
6. Gather Data **(Hx & Px)**
7. Interpret Data
8. Make Decisions
9. Set Goals/Objectives

Professionalism
10. Responsible/Reliable/ Trustworthy
11. Knows Limits
12. Flexible / Resourceful
13. Evokes Confidence
14. Caring / Compassionate
15. Respect/Boundaries/ Availability
16. Collegial
17. Ethical / Honest
18. Evidence Influence
19. Community Responsive
20. Good Balance
21. Mindful Approach

Patient Centered Approach
22. Explores Disease and Illness (**F**eelings, **I**deas, **F**unction & **E**xpectations)
23. Whole Person/Context
24. Common Ground
25. Builds Relationship
26. Health Promotion / Prevention
27. Being Realistic

Procedure Skills
28. Decision to Act
29. Informed Consent & Preparation
30. During Procedure (Comfort/Safety)
31. Technical Skills
32. If Problems: Reevaluate
33. After Care / Follow-Up

Communication with both Colleagues and Patients
34. Listening Skills

Language Skills
- 35. Verbal
- 36. Written
- 37. Charting

Non-Verbal Skills
- 38. Expressive
- 39. Receptive

40. Culture and Age Appropriateness
41. Attitudinal

Domains of Care	
Location of Care	**Lifecycle**
a. Office	g. Palliative Care
b. Emergency	h. Men's Health Care
c. Hospital	i. Women's Health Care
d. Home	j. Care of Adults
e. Long Term Care	k. Care of the Elderly
f. Community	l. Care of Children and Adolescents
	m. Maternal and Newborn Care

Field Note

Dalhousie University – Department of Family Medicine

Date: _____ Learner: _____

Supervisor: _____ Directly Observed Yes ☐ No ☐

Problem/Procedure: _____

Phase: _____

Skill: _____ Competency : _____

Domains: _____

Continue:

Suggestions for Improvement:

Follow Up: _____

Learner's Initials _____ Supervisor's Initials _____

CHARTACTERISTICS OF A GOOD FIELD NOTE

Purposes of a Field Note:

a. For the Learner: support further development
b. For the Clinical and Academic Coach: provide evidence to support assessment, judgement around competency development and a prescription for future growth
c. For the Program: document the learners' path to support program summative decisions concerning program extension, enrichment, completion or termination

Principles:

a. Field Notes do not replace feedback*, they only document it.
b. In general terms, there are parts of clinical encounters that require thinking/problem solving (higher order skills**) beyond basic knowledge. Focusing on these areas better support competency development and assessments.
c. Not all Field Notes require direct observation of the patient encounter but all Field Notes do require direct involvement and reflective discussion with the resident. Think broadly for sources of feedback and Field Notes… i.e. a Field Note could be based on their clinical reasoning following a discussion and/or chart review, witnessing their collaboration with AHC, professional behaviours, leadership skills, etc.
d. Competency-based assessment requires looking for patterns of performance and trajectory. If there is a previously identified area needing improvement, follow up on this is essential to ensure that improvement/growth has occurred.
e. Field Notes alone are not sufficient to ascertain competence. They must be part of an assessment system that collates, summarizes and interprets the data to make decisions. As such they should cover a broad range of identified desired competencies, pick up on past performance to follow trajectory and be numerous enough to provide a high-resolution picture of competency.

Characteristics of a Good Field Note:

- Has a date (for trajectory)
- Identifies a topic and a competency
- Is behaviourally specific and uses clear unambiguous language
- Is detailed enough to paint a picture of the performance being commented on
- Is focussed on the individual (not a comparator to others)
- Is focussed on a manageable amount of information
- Is focused on higher order skills
- Includes an application of the assessment standards***
- Has a judgement about the performance
- Identifies things to continue doing, things for further growth
- Promotes reflection

*The characteristics of good feedback include:

a. Ensuring the discussion is timely (at least the same day)
b. Ensuring it is frequent (at least daily)
c. Being specific and commenting on behaviours, not intentions or personal attributes
d. Having reflective discussions that focus on challenging/discerning case characteristics
e. Stimulating learning through making a judgement and documenting and discussing pertinent coaching points with each case
f. Focusing on one take-home message each for the behaviours to continue and the behaviours to modify
g. Making judgements based on standards, not comparators to others
h. Using the CFPC Evaluation Objectives to help identify key messages

** Higher Order Skills: Consider focusing on:

a. History vs Physical Exam
b. Diagnosis vs Treatment (although higher order skills could go into treatment decisions if the focus is on patient centeredness and/or acuity rather than just knowledge)
c. Data gathering vs Data interpretation

TEMPLATE FOR IN-TRAINING ASSESSMENT PROCESS

DALHOUSIE FAMILY MEDICINE'S
TEMPLATE FOR IN-TRAINING ASSESSMENT PROCESS

ITA TASKS / STEPS	DESCRIPTION	LEARNER ROLES	WHO DOES WHAT? LEARNER IN PARTNERSHIP WITH FACULTY/PRECEPTORS/ADMINISTRATORS/PATIENTS/ALLIED HEALTH CARE PARTNERS
During daily clinical activities ❖ Observe performances ❖ Provide feedback ❖ Document	• Field notes • End of shift clinical assessment • Patient feedback forms	The learner will: ❖ Seek opportunities to be observed ❖ Seek feedback ❖ Participate in a process of reflective learning with documentation	Assessors in partnership with residents: ❖ Seek opportunities to observe performances ❖ Provide feedback ❖ Participate in reflection of the resident's clinical practice with documentation
Collect and organize documentation within a framework ❖ Daily field notes ❖ Other performance assessments	Portfolio and/or file collection of evidence	The learners will organize documented observations according to: ❖ Learner's needs ❖ Objectives ❖ Program requirements	Administrative staff compiles and organizes the residents file with all relevant data for review twice annually with the Site Director or their designate. One copy of the field note is retained by faculty for use in completing the ITAR and after given to site administrative staff for placement on the permanent file.
Periodic assessment of progress based on organized documentation	Guided review and assessment	In order to systematically develop competence in comprehensive full scope family medicine the resident: ❖ Will use the CFPC Evaluation Objectives ❖ Provides self-assessment ❖ Participates in process of guided self-assessment	All family medicine faculty will use the CFPC Evaluation Objectives to identify and assess the competencies necessary for the individual learner's future practice of comprehensive full scope family medicine. All faculty will provide the resident with assessment (ITAR) in-part populated with comments from field notes. Site Director or designate to review progress towards competence with the resident providing feedback and discussion with reflection to determine if the curriculum requires modification (twice annually).

Review and update learning plans	Who takes action – what action is required	To describe the competencies necessary for their future practice each resident will actively participate in developing an appropriate series of learning plans throughout their residency by periodically: ❖ Reflecting on learning needs ❖ Future career plans ❖ Personal objectives ❖ Community needs	Primary Preceptor meets with the resident twice annually to review their progress specific to Family Medicine and establish their learning objectives with a learning plan. The Site Director and or Designate reviews with the resident twice annually to review their overall progress and establish their learning objectives with a learning plan
Adjust and adapt learning activities	Identifying resources Modifying curriculum Identifying target goals Modify/customize assessment ❖ Formative and summative ❖ Frequency and/or type of periodic assessment	Become actively involved in implementing the adapted learning experiences needed to achieve the competences required for their future practice. Collaborate with Faculty: ❖ To identify personal goals for development and/or remediation ❖ To identify needed resources ❖ Modifying the curriculum ❖ Customize the assessment	Primary Preceptor and/or the Site Director and/or the Program Director works with the resident to establish target goals. They will identify appropriate resources with the needed modification of the curriculum. As appropriate the formative and summative assessment will be customised with a customized reporting system.
Reporting	With learner/resident to clarify plans Back to daily clinical supervisors Progress report to appropriate administrators/faculty Documentation for accreditation	Take ownership with reporting of the learning plan through: ❖ Discussion and documentation for implementation with appropriate faculty ❖ Establish and document the necessary learning experiences to achieve the required competencies.	The Primary Preceptor and/or the Site Director or their designate ensures: ❖ Both the resident and faculty have responded to the learning needs with appropriate documentation. ❖ Progress reports are placed in resident's file by administrators. Resident's file will be a permanent record for review.

A portion of the content of this form was adapted from: The 2010 Working Group on the Certification Process (T Allen , C Bethune, C Brailovsky, T Crichton, M Donoff, T Laughlin, K Lawrence, S Wetmore (alphabetical)).

Reviewed and Approved by Residency Training Committee: October 3, 2013

IN-TRAINING ASSESSMENT REPORT (ITAR) for FAMILY MEDICINE

Dalhousie University Fam Med Postgrad	Evaluated By : evaluator's name Evaluating : person (role) or moment's name (if applicable) Dates : start date to end date	

* indicates a mandatory response

Final

In-Training Assessment Report (ITAR) for Family Medicine

The purpose of this in-training assessment report is to provide clear documentation of the resident's progress towards competence in the six essential family medicine skills. Each skill is defined. Please add specific comments about resident performance to outline where the resident has achieved competence, where they are progressing satisfactorily, areas to focus on for future development and any concerns. Please provide examples from field notes that support your narrative.

In order to document satisfactory progress, all six skill dimensions should be assessed in a **sampling** of the following content of comprehensive family medicine.

PGY1 - with readily available supervision PGY2 - independently with back up

- **Care of Children**
  - o Newborn care
  - o Evidence based health promotion and prevention from infant to child
  - o Acute illness in infants
  - o Acute illness in school age children
  - o Chronic illness

- **Care of Adolescents**
  - o Evidence based health promotion and prevention
  - o Issues around sexuality and reproductive health
  - o Assessment of substance use/abuse
  - o Social problems
  - o Psychological/psychiatric problems
  - o Suicide risk
  - o Chronic illness (e.g. diabetes, asthma, IBD)

- **Care of Adults**
  - o Evidence based health promotion and prevention
  - o Chronic disease care (e.g. diabetes, CVD, arthritis, COPD etc)
  - o Complex patients with multiple diseases
  - o Benign self limited illnesses
  - o Undifferentiated problems
  - o Acute serious illness in ambulatory setting
  - o Acute illness needing urgent care or hospitalization
  - o Care of hospitalized patients
  - o Behavioral Medicine
  - o Life stages and transitions
  - o Cancer care
  - o Palliative care
  - o Care of Women including Maternity Care
  - o Care of Men
  - o Emergency Medicine
  - o Care of Underserved populations
  - o Care of the Elderly

- **Uncommon but serious and treatable conditions (red flags)**

- **Therapeutics**

- **Procedure Skills**

In order to be competent for the independent practice of Family Medicine, the resident should demonstrate the ability

to practice in all of the above areas at the completion of residency training.

Selectivity

Definition
Residents who demonstrate selectivity are able to set priorities, focus on what is most important and avoid a routine or stereotypical approach (such as a medical student might use). They are selective and adapt to the situation and the patient. They gather the most useful information without losing time on less contributory data however they will explore a problem in detail when needed. They can distinguish urgent and non-urgent conditions and act appropriately for each.
Click here to view the CFPC priority topics and key features.

Click here to view the CFPC description for Selectivity.

Describe aspects of competence achieved in SELECTIVITY and developing competence including examples from field notes

Describe areas for focus and further development in SELECTIVITY including examples from field notes

	Significant concerns about progress - site level or program level remediation plan required. May need program support	Some concerns about progress. A plan has been established between the resident and the preceptor and will be implemented and assessed through ongoing clinical exposure	Progress as expected. No concerns.
Rate:	○	○	○

Clinical Reasoning

Definition
Residents who demonstrate good clinical reasoning gather **the right information at the right time and interpret and synthesize** the information systematically. They consistently consider common and red flag conditions and organize their thinking to come to a reasonable problem list with short and long term management plans. They make appropriate decisions and set appropriate goals. Click here to view the CFPC priority topics and key features.

Click here to view the CFPC description for Clinical Reasoning.

Describe aspects of competence achieved in CLINICAL REASONING and developing competence including examples from field notes

Describe areas for focus and further development in CLINICAL REASONING including examples from field notes

	Significant concerns about progress - site level or program level remediation plan required. May need program support	Some concerns about progress. A plan has been established between the resident and the preceptor and will be implemented and assessed through ongoing clinical exposure	Progress as expected. No concerns.
Rate:	○	○	○

Professionalism

Definition
Professionalism means reliability, trustworthiness, respect and responsibility to patients, to colleagues, to oneself, to the profession, and to society at large; it deals with honesty, ethical issues, lifelong learning and the maintenance of the quality of care. Important attitudinal aspects such as caring and compassion fall under professionalism. It includes knowing and expanding one's limits of competence, dealing with uncertainty in a clinically appropriate and patient-centered manner and the ability to evoke confidence without arrogance. Professionalism implies attention to boundaries, commitment to patient well being, respect for patients' culture and values (e.g. appropriate personal appearance) and willingness to assess one's own performance. It includes a commitment to reflective practice, evidence based medicine and learning from colleagues and patients as well as a commitment to personal health and seeking balance between personal life and professional responsibilities. The ability to behave professionally and collegially in difficult situations is essential. Professionalism means doing the right thing even when no-one else may ever know. Click here to view the CFPC themes with their observable behaviours for Professionalism.

Describe aspects of competence achieved in PROFESSIONALISM and developing competence including examples from field notes

Describe areas for focus and further development in PROFESSIONALISM including examples from field notes

	Significant concerns about progress - site level or program level remediation plan required. May need program support	Some concerns about progress. A plan has been established between the resident and the preceptor and will be implemented and assessed through ongoing clinical exposure	Progress as expected. No concerns.
Rate:	○	○	○

Patient-Centered Approach

Definition
Residents who are patient centred demonstrate exploration of both the disease and the patient's personal experience of illness (e.g. FIFE). They show an active interest in their patients and over time are able to describe important details of their lives. They work to enhance the relationship and gather day to day contextual information that will help guide them in making appropriate decisions with their patients. They work with their patients to come to agreement on the problems, the priorities, the goals and approach to management. They regularly address prevention and health promotion in clinical encounters. They manage time and resources effectively. Click here to view the CFPC themes with their observable behaviours for Patient-Centred Approach.

Describe aspects of competence achieved in PATIENT CENTERED APPROACH and developing competence including examples from field notes

Describe areas for focus and further development in PATIENT CENTERED APPROACH including examples from field notes

	Significant concerns about progress - site level or program level remediation plan required. May need program support	Some concerns about progress. A plan has been established between the resident and the preceptor and will be implemented and assessed through ongoing clinical exposure	Progress as expected. No concerns.
Rate:	○	○	○

Procedure Skills

Definition
Residents who have an effective approach to procedures can decide if it is appropriate for **them** to do **this** procedure on **this** patient on **this** day. They prepare thoroughly for the procedure including patient consent. They attend to the patient's comfort and safety throughout the procedure. If difficulties arise they demonstrate the ability to reevaluate and stop or seek assistance. They organize appropriate after care and follow up. They demonstrate appropriate technical skills. Click here to view the CFPC general key features for Procedure Skills and a list of the core procedures.

Describe aspects of competence achieved in PROCEDURE SKILLS and developing competence including examples from field notes

Describe areas for focus and further development in PROCEDURE SKILLS including examples from field notes

	Significant concerns about progress - site level or program level remediation plan required. May need program support	Some concerns about progress. A plan has been established between the resident and the preceptor and will be implemented and assessed through ongoing clinical exposure	Progress as expected. No concerns.
Rate:	○	○	○

Communication Skills

With members of the health care team (colleagues)

Definition
Residents who communicate well with colleagues take enough time and demonstrate the ability to listen so they truly understand their colleague's point of view. They are able to communicate accurately and clearly, both verbally (face to face, over the phone, etc.) and in writing (e.g. chart notes, consult letters, orders, prescriptions etc.).They display effective non-verbal skills including attention to their own body language, responding to body language of a colleague, tone of voice, etc. They demonstrate respect for the opinions, values and ideas of their colleagues. Click here to view the CFPC themes with their observable behaviours for Effective Communication with Colleagues.

Describe aspects of competence achieved in COMMUNICATION SKILLS with colleagues and developing competence including examples from field notes

Describe areas for focus and further development in COMMUNICATION SKILLS including examples from field notes

	Significant concerns about progress - site level or program level remediation plan required. May need program support	Some concerns about progress. A plan has been established between the resident and the preceptor and will be implemented and assessed through ongoing clinical exposure	Progress as expected. No concerns.
Rate:	○	○	○

Communication Skills

With patients

Definition
Residents who communicate well with patients demonstrate the ability to listen so that they truly understand the patient's needs. They are able to communicate clearly both verbally and in writing (e.g. letters, instructions). They display effective non-verbal skills including attention to their own body language, responding to the body language of a patient, use of silence, etc. Their communication is appropriate to the culture and age of the patient. They demonstrate a respectful, caring and compassionate attitude. Click here to view the CFPC themes with their observable behaviours for Effective Communication with Patients.

Describe aspects of competence achieved in COMMUNICATION SKILLS with patients and developing competence including examples from field notes

Describe areas for focus and further development in COMMUNICATION SKILLS including examples from field notes

	Significant concerns about progress - site level or program level remediation plan required. May need program support	Some concerns about progress. A plan has been established between the resident and the preceptor and will be implemented and assessed through ongoing clinical exposure	Progress as expected. No concerns.
Rate:	○	○	○

OVERALL PROGRESS TO DATE

	Significant concerns about progress - site level or program level remediation plan required (must be brought to Residency Training Committee Executive meeting for discussion).	Some concerns about progress. A plan has been established between the resident and the preceptor and will be implemented and assessed through ongoing clinical exposure	Progress as expected. No concerns.
*Rate:	○	○	○

Individual Objectives for Future Development with appropriate Learning Plan:

The content of this form was adapted from: T Allen, C Bethune, C Brailovsky, T Crichton, M Donoff, T Laughlin, K Lawrence, S

Page 5

Wetmore (alphabetical). Defining competence in Family Medicine for the purposes of certification by the College of Family Physicians of Canada: The evaluation objectives in family medicine.

The following will be displayed on forms where feedback is enabled...
(for the evaluator to answer...)

*Did you have an opportunity to meet with this trainee to discuss their performance?

- ○ Yes
- ○ No

(for the evaluee to answer...)

*Did you have an opportunity to discuss your performance with your preceptor/supervisor?

- ○ Yes
- ○ No

*Are you in agreement with this assessment?

- ○ Yes
- ○ No

IMPORTANT: Please be advised that comment entered into the one45 comment box below will not automatically be reviewed. If you choose to make a comment about this ITAR, please contact your Site Director, or Program Director, to discuss the matter further.

For the CFPC Evaluation Objectives, with the observable behaviours of Professionalism and Communication Skills and priority topics with their key features please see One45 Handouts and Links

Please download this onto your desktop for use in clinical teaching.

Benchmarks for Family Medicine Residents

for the academic year 2020-2021

Department of Family Medicine
1465 Brenton Street
Suite 402
Halifax, NS B3J 3T4

family.medicine.dal.ca

Introduction & Background

Graduates of Dalhousie's Family Medicine programme should have the skills necessary to work in any undifferentiated family medicine practice. To this end, the Dalhousie approach to curricular design and assessment revolves around competency based medical education (CBME). The College of Family Physicians of Canada (CFPC) with its Triple-C curriculum utilizes a number of objectives to delineate the domain of competence. Currently Dalhousie Family Medicine uses data gathered from field notes and in-training assessment reports (ITARs) to determine success in a particular rotation. Periodic review, conducted twice per year, serves as a way to ensure the resident is meeting the overarching objectives of the programme and has a co-created learning plan.

A number of family medicine programmes across Canada have undertaken initiatives aimed to help residents benchmark their progress through their residency programme in light of local and national goals and objectives. Dalhousie is undertaking a similar approach using the Skill Dimensions framework. Residents, during their periodic reviews or at times designated by their Site, will be assessed using the benchmarks below to ascertain progress towards independent practice.

Each item is grouped by the Skill Dimensions. Residents are assessed on a scale from 1 to 5 delineating a range from needing close supervision to independent. It is expected that residents in the Dalhousie Family Medicine training programme will attain all benchmarks at the independent level by the time of completion of their residency training.

Residents and preceptors will assess attainment of benchmarks individually twice per year. However, this data will then be collated, and differences will be highlighted as a source of possible discussion. The purpose is to help inform an individualized learning plan, either as part of a rotation or more longitudinally at the bi-annual review.

This is the first year that the programme has implemented this. As such, it will be reviewed annually.

		Close Supervision	Distant Supervision	Independent
SELECTIVITY	1. Sets appropriate priorities during patient encounters	Does not prioritize patient problems during encounter. Focuses on physician agenda for appointment.	With appropriate coaching, can set priorities during patient encounters. Needs ongoing coaching to reach a balance between patient and physician priorities.	Actively balances patient and physician priorities, reaching common ground in shared decision-making.
	2. Performs an appropriate, focused physical examination	Performs a physical examination in a thorough but stereotypical fashion; is unfocused, or sometimes not reproducible, may use incorrect or inappropriate technique. Does not interact with the patients during the examination.	Performs a thorough but relatively focused and reproducible physical examination. Common examination techniques performed correctly. Interacts with the patient during the examination.	Performs a focused and reliable physical examination, including specialized examination techniques when relevant. Comfortably interacts with the patient during the examination.
	3. Distinguishes the sick from the not sick	Fails to recognize serious urgent/ emergent conditions encountered in family medicine.	With appropriate coaching, recognizes and manages common urgent/ emergent conditions.	Spontaneously anticipates, recognizes & appropriately manages common urgent / emergent conditions
	4. Selects investigations and modifies treatment to fit patient need	Chooses inappropriate or generic/stereotyped investigations and treatments rather than tailoring them to patient's situation.	For common primary care complaints, identifies, with appropriate coaching, investigations and treatments tailored to the patient's situation.	For common primary care complaints, spontaneously identifies investigations and treatments tailored to the patient's situation.

		Close Supervision	Distant Supervision	Independent
CLINICAL REASONING	1. Practices generalist medicine	Shows little understanding in the breadth of family practice. Rarely incorporates health promotion and disease prevention in patient visits. Fails to recognize the complexity of medical practice.	With some coaching, practices full-scope family medicine including trying to promote health and disease prevention in patient visits.	Practices cradle-to-grave medicine through the spectrum of health promotion and disease prevention, recognizing the complexity, uncertainty, and ambiguity inherent in medical practice.
	2. Performs patient-centered clinical assessments	Assesses patients in an exhaustive but stereotyped way. May seem disorganized or unfocused, and may incompletely assess the problems. Misses key features. Does not adjust to cues arising during the interview. Performs physical examination lacking focus and reproducibility. May use incorrect or inappropriate technique. Interacts poorly with the patients during the examination.	Performs more or less focused patient assessment, defines problem well, but spends excessive time assessing less relevant information. Performs a thorough but relatively focused and reproducible physical examination. Common examination techniques performed correctly. Interacts with the patient during the examination.	Selectively adjusts patient assessment by focusing on relevant information. Performs a focused and reliable physical examination, including specialized examination techniques when relevant. Comfortably interacts with the patient during the examination.
	3. Establishes management plans	Management plans often lack detail and can be unfocused or disorganized. Unable to prioritize urgent issues in management plans.	With coaching, able to develop a comprehensive management plan and prioritize urgent issues.	Develops organized and comprehensive management plans for all clinicial situations. Prioritizes urgent issues first in management plans.
	4. Manages uncertainty	Shows a marked insecurity when	Manages clinical problems in a	Manages clinical problems in a

		facing uncertainty, or does not recognize a situation in which he/she should feel uncertain.	context of uncertainty mainly by consulting preceptors.	context of uncertainty not only by consulting preceptors, but also consulting other appropriate sources of information such as colleagues and by encouraging shared decision making with the patient.
	5. Uses appropriate clinical judgment	Makes clinical decisions where the proposed diagnosis and management are inconsistent with the symptoms and signs of the patient. Does not prioritize assessment or management in light of the urgency of a clinical situation.	With appropriate coaching, makes logical decisions linking the identified clinical signs and symptoms, the diagnosis and the proposed management. With supervisor's help, prioritizes work-up or management in light of the urgency of a clinical situation.	Makes logical decisions linking the identified clinical signs and symptoms, the diagnosis and the proposed management. Spontaneously prioritizes work-up or management in light of the urgency of a clinical situation.
	6. Has an evidence-informed practice	Rarely considers available evidence in the use of diagnostic and therapeutic tools.	With appropriate coaching, considers available evidence in the use of diagnostic and therapeutic tools. Tends to directly apply conclusions from critical appraisal without ensuring applicability to the patient on an individual basis.	Spontaneously considers available evidence in the use of diagnostic and therapeutic tools. Adjusts conclusions from critical appraisal to ensure applicability to the patient on an individual basis.
	7. Engages in the stewardship of health care resources	Minimally considers the consequences of his/her investigations / management decisions and associated costs for the health system.	With appropriate coaching, generally considers the consequences of his/her work-up / management decisions and associated costs for the health system.	Spontaneously considers the consequences of his/her work-up / management decisions and associated costs for the health system.

		Close Supervision	Distant Supervision	Independent
PROFESSIONALISM	1. Demonstrates a commitment to patients through clinical excellence and high ethical standards	Explains little or does not explain the benefits and risks of proposed interventions and the consequences of not intervening; reveals personal information against the expressed will of the patient or speaks of patients in public environment; does not respect patient decisions and autonomy.	Stereotypically explains the benefits and risks of proposed interventions and the consequences of not intervening; respects patient privacy, respects patient autonomy in their decision making.	Explains in a manner appropriate to the patient the benefits and risks of proposed interventions and the consequences of not intervening to allow a free and informed decision; respects the privacy of patients; respects and promotes patient autonomy in their decision making. Manages conflicts of interest and maintains professional boundaries.
	2. Demonstrates a commitment to society by recognizing and responding to societal needs in health care	Does not recognize their role in the context of society at large. Shows little insight into the recognition of societal needs. Does not consider patients' social context within encounters. Does not respond to societal needs when identified.	Recognises their role in the context of society at large. At times considers patients' social context within encounters. With appropriate coaching, can come up with a plan to respond to identified societal needs.	Demonstrates accountability to patients and society by regularly considering elements of the patients' social context within encounters. Is able to identify societal needs independently and respond appropriately.
	3. Demonstrates a commitment to the profession by adhering to standards and participating in physician-led regulation	Demonstrates a lack of knowledge of codes of conduct and laws regarding the profession. Shows little insight into unprofessional and unethical behaviours of physicians and other practitioners and/or does not stay up to date with physician regulation documentation.	With appropriate coaching, recognizes the need for codes of conduct and recognizes unprofessional/unethical behaviours in physicians and other practitioners. Stays up to date with physician regulation documentation.	Adheres to professional ethical codes of conduct and laws governing practice resulting in a culture of respect and collegiality. Responds to unprofessional and unethical behaviours in physicians and other practitioners. Stays up to date with physician regulation documentation.
	4. Demonstrates a commitment to physician health and well-being to foster optimal patient care	Presents difficulty in prioritizing various professional obligations when facing multiple requirements. Takes too much or not enough time to meet his/her personal needs. When a conflict between professional and personal activities is brought to his/her attention, does not take it into account nor adjust accordingly.	With appropriate coaching, prioritizes various professional obligations when facing multiple requirements. Usually protects a suitable time to meet his/her personal needs. When a conflict between professional and personal activities is brought to his/her attention, discusses it on demand and adjusts accordingly.	Spontaneously prioritizes various professional obligations when facing multiple requirements. Protects a suitable time to meet his/her personal needs. When a conflict between professional and personal activities is brought to his/her attention, spontaneously discusses it and adjusts accordingly.

	5. Demonstrates a commitment to reflective practice	Does not recognize the factors that could have an impact on consultations. Does not take time to reflect on events and actions in clinical practice.	Recognizes the factors that could have an impact on consultations, but does not consider the implications for patient or self. With coaching, reflects on the events occurring in his/her practice, especially critical incidents, to refine knowledge of him/herself.	Recognizes the factors that could have an impact on consultations and works to resolve them before meeting with patients. Able to spontaneously reflect on the events occurring in his/her practice, especially critical incidents, to refine knowledge of him/herself.
	6. Cultivates and maintains positive working environments through promoting understanding, managing differences, minimizing misunderstandings, and mitigating conflicts	Is not consistently respectful of others in the team environment. May be confrontational with colleagues. Lacks skill in mitigating conflict.	With appropriate coaching, understands their role and the roles of their colleagues in shared decision-making. Requires some coaching to reflect on their own limitations and that of team function. Has some skill in mitigating conflict, may require coaching at times.	Actively maintains a respectful attitude towards others and engages in shared decision-making, minimizing conflict. Is able to mitigate conflicts in a professional manner when they occur. Reflects and recognizes one's own limitations and how this impacts team function.
	7. Seeks feedback regarding performance	Does not seek feedback. May be resistant to feedback given or does not respond to feedback.	Generally actively seeks feedback. Is able to make some appropriate changes or improvements based on feedback given/received.	Appropriately self reflects and self-evaluates. Makes appropriate changes based on self-reflection. Seeks feedback on appropriateness and accuracy of self-assessment.
	8. Teaches students, residents, the public, and other health care professionals	Teaches or supervises learners intuitively based on his/her past learning experience, without adjusting to learners' needs.	Incorporates some teaching strategies in small group teaching or clinical supervision in order to vary approaches, occasionally adjusting to learners' needs.	Uses varied teaching strategies in small group teaching or clinical supervision to encourage active learning most often adjusted with learners' needs.

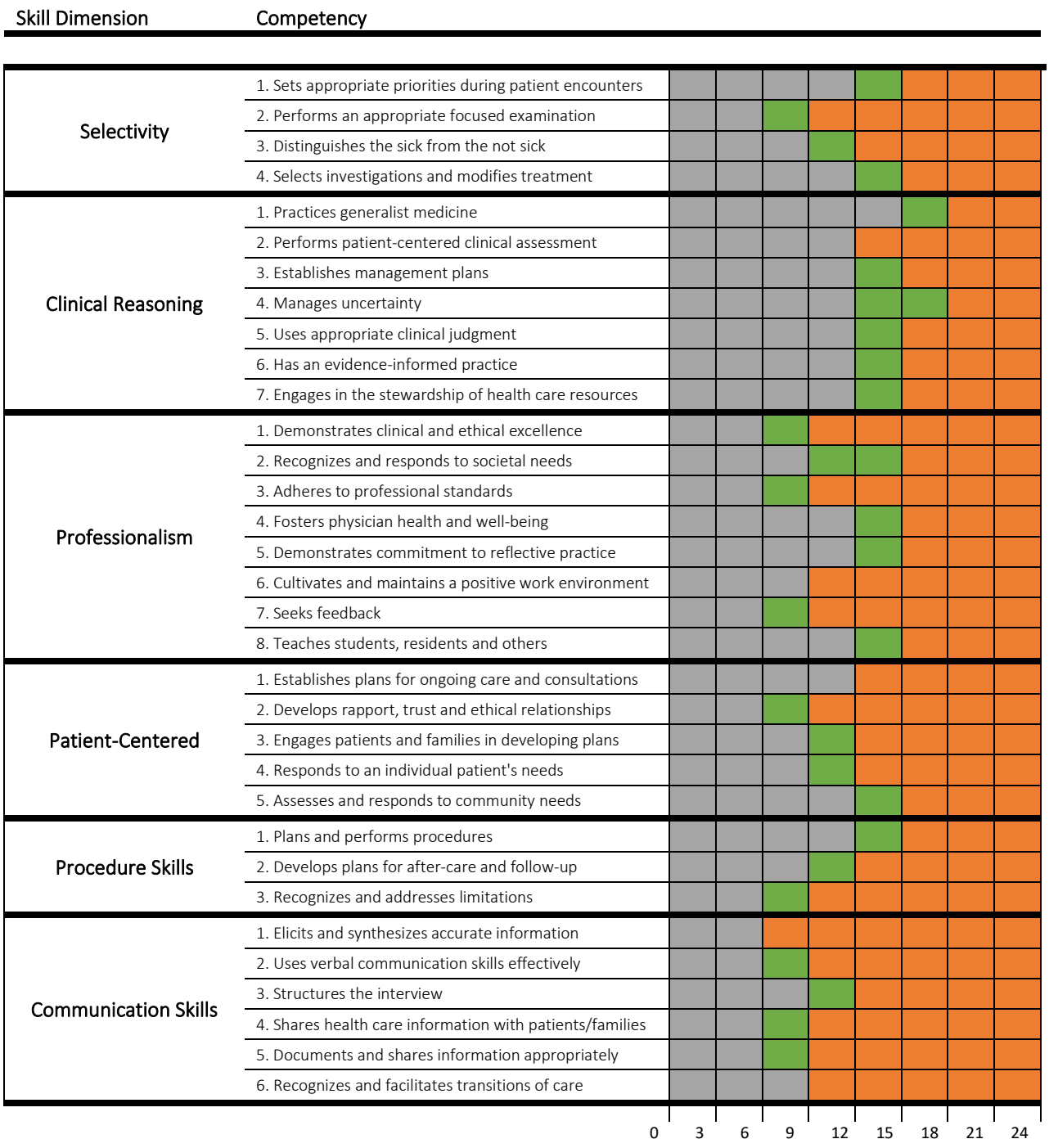
		Close Supervision	Distant Supervision	Independent
PATIENT-CENTERED	1. Establishes plans for ongoing care and timely consultation when appropriate	Adopts a rather unilateral and paternalistic discourse. Is rarely inclined to give patients and their families information about the problem and associated management.	Must be coached to encourage discussion, questions and feedback from patient. Teaches patients and their families generic information regarding the patient problem and associated management. When reminded, involves the patient to find common ground about management (shared decision making).	Utilizes consistently the patient-centered method to determine the plan of care including appropriate referral to other providers. Spontaneously encourages discussion, questions and feedback from patient. Sensitively adapts teaching to patients and their families. Usually involves patient spontaneously to find common ground about management (shared decision making).
	2. Develops rapport, trust, and ethical therapeutic relationships with patients and their families	Struggles with developing rapport with patients and families. Does not recognize the importance of respecting confidentiality, privacy and autonomy.	Requires ongoing feedback on developing rapport with patients. Respects confidentiality, privacy and autonomy.	Uses understanding, trust, respect, honesty, and compassion in establishing positive therapeutic relationships while respecting confidentiality, privacy and autonomy.
	3. Engages patients and their families in developing plans that reflect the patient's health care needs, values and goals	Rarely consults with patients, family members and / or caregivers (when relevant) to guide interventions.	When prompted, consults with patients, family members and / or caregivers (when relevant) to guide interventions.	Spontaneously seeks and incorporates patient and family perspectives in developing care plans based on needs, values and goals.
	4. Responds to an individual patient's needs by advocating with the patient within and beyond the clinical environment	Rarely discusses health promotion and disease prevention strategies with patients, or suggests inappropriate strategies not tailored to patient's need.	When prompted, discusses health promotion and disease prevention strategies with patients.	Spontaneously implements health promotion and disease prevention strategies suitably adapted to patient needs.
	5. As a resource to their community, assesses and responds to the needs of the communities or populations served by advocating with them as active partners for system-level change in a socially accountable manner	Rarely identifies or, declines to take care of some vulnerable (elderly, mental health, chronic illness, etc.) or marginalized (immigrant, homeless, indigenous, etc.) populations.	With appropriate coaching, responds appropriately to the needs of vulnerable (elderly, mental health, chronic illness, etc.) or marginalized (immigrant, homeless, indigenous, etc.) populations.	Responds appropriately to the needs of vulnerable (elderly, mental health, chronic illness, etc.) or marginalized (immigrant, homeless, indigenous, etc.) populations.

		Close Supervision	Distant Supervision	Independent
PROCEDURE SKILLS	1. Plans and performs procedures and therapies for assessment and/or management	Selects inappropriate intervention, does not obtain consent or obtains incomplete consent, improperly prepares for intervention, applies incorrect technical skills; unsafely discards hazardous materials; plans inappropriate follow-up.	Selects appropriate intervention, obtains consent based on correct information; prepares properly with appropriate coaching; demonstrates correct technical skills with appropriate coaching; safely discards hazardous materials; plans for appropriate follow-up.	Selects appropriate patient-centered intervention, obtains patient-centered consent; prepares properly; spontaneously demonstrates correct technical skills while paying attention to patient comfort; safely discards hazardous materials; tailors follow-up to patient needs.
	2. Develops plans for after-care and follow-up	Develops inappropriate after-care plans and follow-up. Fails to recognize need for timely follow-up.	With appropriate coaching, is able to develop a plan for after-care to give to the patient and arranges follow-up.	Spontaneously reaches common ground with patients regarding appropriate after-care treatment and arranges follow-up as appropriate.
	3. Recognizes and addresses limitations	Does not recognize limitations when performing procedures and may be unsafe. Rarely seeks feedback to remediate deficiencies.	Recognizes some limitations but still may miss significant ones. Seeks some feedback to correct deficiencies.	Spontaneously reviews potential knowledge gaps. Actively seeks feedback to address any limitations in knowledge and skill in procedures.

		Close Supervision	Distant Supervision	Independent
COMMUNICATION SKILLS	1. Elicits and synthesizes accurate and relevant information from, and perspectives of, patients and their families	Inattentive or distracted when taking a patient history; misses nonverbal cues provided by the patient.	Listens properly to patient answers and grasps nonverbal cues, without adjusting data collection and analysis accordingly.	Actively listens to patient answers and grasps nonverbal cues to adjust data collection and analysis accordingly.
	2. Uses verbal communication skills effectively	Seems to be misunderstood by the patient; often holds a conversation not well adapted to the patient; pays little attention to interview techniques. Does not use accepted approach to induce a change in behavior,	Sometimes, seems misunderstood by the patient; occasionally holds a conversation not well adapted to the patient; demonstrates appropriate use of some interview techniques. When prompted, uses accepted strategies / communication models	Seems well understood by the patient; holds a conversation well adapted to the patient; demonstrates appropriate interview techniques. Spontaneously uses accepted strategies / communication models to induce a change in behavior, break bad news

		break bad news or manage a difficult patient.	to induce a change in behavior, break bad news or manage a difficult patient.	or manage a difficult patient.
	3. Structures the interview	Does not list patient chief complaints, or ignores them; does not contract with patient at the beginning of the interview, struggles to control the interview, or rigidly controls the interview.	With appropriate coaching, explores patient chief complaints early in the interview; when prompted, balances the agenda with that of the patient; needs some guidance to control the interview effectively.	Explores all patient chief complaints early in the interview and spontaneously balances the agenda with that of the patient; controls the interview with appropriate fluency.
	4. Shares health care information and plans with patients and their families	Shares little information with patient. Does not seek feedback to ensure patients and their families understand.	With appropriate coaching, provides patients with information that is accurate and timely. Sometimes seeks feedback from patients to ensure understanding.	Is able to share information with patients and families that is clear, accurate and timely, seeking feedback and addressing concerns as appropriate.
	5. Documents and shares written and electronic information about the medical encounter to optimize clinical decision making, patient safety, confidentiality, and privacy	Maintains unclear, inaccurate records, incompletely reflecting consultation, or inconsistent with professional regulations. Does not complete records in a timely manner.	With appropriate coaching, maintains clear and accurate records, consistent with professional regulations.	Spontaneously maintains clear and accurate records, consistent with professional regulations. Documents are focused.
	6. Facilitates necessary transitions in care with other colleagues in the health professions, including but not limited to shared care, transfer of care, and/or handover of care to enable continuity and safety	Communicates inappropriate consultation requests with a nonspecific question, insufficient or non-targeted clinical information, or uses confusing language.	With some coaching, communicates appropriate consultation requests and transitions in care with a clear question, relevant and targeted clinical information and appropriate language.	Communicates appropriate consultation requests and transitions in care with a clear question, relevant and targeted clinical information and appropriate language.

Expected Timeline to Achieve "Independent" Entrustment of Competencies



Legend

- Competency achieved at the expected timing
- Limit timing for achievement of competency
- Delay in competency achievement

BI-ANNUAL RESIDENT PERFORMANCE REVIEW WORKSHEET

- The sections assigned to the resident MUST be completed and submitted three weeks prior to meeting with the Site Director or designate.
- The sections assigned to the administrator are expected to be completed upon receipt of the resident's submission and prior to the scheduled meeting between the resident and the Site Director or designate.
- The sections assigned to the Site Director or designate are expected to be completed at the time of the scheduled meeting with the resident.
- The bi-annual reviews are a great opportunity for you to define your short- and long- term personal learning objectives. The more thought you put into the process, the more you stand to gain from it! Please note that we are streamlining this process and that the following data points may change during your residency (although the timelines will remain the same)
- Additionally, during this upcoming year, we are implementing the use of "benchmarks" during your bi-annual review process. These benchmarks are used to ensure that you are meeting certain broad competencies at the right point in your training. You will be receiving more information on this process and rubric in the ensuing months.

PLEASE NOTE: *The Biannual Review document is undergoing some updates/revisions at the time of publication and has therefore been labelled as a draft document*.

Resident: _____

Introduction

The bi-annual review is an opportunity for you to 'check-in' regarding your progress through your residency. Guided self-reflection on your progress is key in helping you formulate a learning plan that meets your needs and ensures alignment with the College's learning requirements. The bi-annual review tends to be about 0.5-1h long. You should review your progress to date and come prepared to discuss various aspects of your progress as reflected on and outlined below.
(https://portal.cfpc.ca/resourcesdocs/uploadedFiles/Directories/Sections/Section_of_Residents/GIFT%202017_One%20pager_ENG_RevMay18_Final_Web.pdf)

Please be thoughtful in your responses: this is not simply a 'hoop' to pass through rather an opportunity for you to chart the course of your learning in the remaining months of your residency. In addition to wanting to ensure your skillset meets the requirement of the College, we want to ensure that you are meeting your own individual goals for learning and have a personal career path and wellness in mind. Be prepared to lead the review as it is for your personal growth!

In terms of timelines, you will need to complete and submit this document at least a week in advance of your bi-annual review. Be sure to complete each section.

1. **YOUR PRACTICE SITUATION**

Comment on how you have had the opportunity to develop a panel of patients with whom you experience continuity. Are there specific areas of strength that you have noted and any areas that may need more exposure (e.g. children, adolescent, adult, elderly, palliative patients)?

2. **PROGRESS TOWARDS INDEPENDENT PRACTICE**

Consider the six skill dimensions under which you are progressing and assessed. Do you feel that you are progressing adequately in each? Do you feel that there are areas that you discovered gaps and that you may need more experience? Please use the space below to capture your self-assessed proficiency in each area (backing up your reflection with field notes, benchmarks and/or ITAR comments as appropriate) and any areas that may need some work. This should include any areas that may require additional learning experiences. You will likely want to use these thoughts to generate your own learning plan in section 4.

2.1. SELECTIVITY **Number of Field Notes:** _____

(https://portal.cfpc.ca/resourcesdocs/uploadedFiles/Education/Selectivity.pdf)

2.2. PATIENT-CENTERED APPROACH **Number of Field Notes: _____**

(https://portal.cfpc.ca/resourcesdocs/uploadedFiles/Education/The%20Patient-Centred%20Approach.pdf)

2.3. COMMUNICATION SKILLS (with patients and colleagues/team)

Number of Field Notes: _____

(https://portal.cfpc.ca/resourcesdocs/uploadedFiles/Education/Communication%20Skills.pdf)

2.4. CLINICAL REASONING **Number of Field Notes: _____**

(https://portal.cfpc.ca/resourcesdocs/uploadedFiles/Education/Clinical%20Reasoning%20Skills.pdf)

2.5. PROCEDURES **Number of Field Notes: _____**

Number of Procedures: _____

Number of Deliveries: _____

(https://portal.cfpc.ca/resourcesdocs/uploadedFiles/Education/Procedure%20Skills.pdf

2.6. PROFESSIONALISM **Number of Field Notes: _____**

(https://portal.cfpc.ca/resourcesdocs/uploadedFiles/Education/Professionalism.pdf)

2.7. LOCATION OF CARE

Do you feel that you have had adequate exposure to the following environments: office, emergency, hospital, home, long-term care and community?

2.8. LIFECYCLES

Do you feel that you have had adequate exposure to the following lifecycles: palliative care, men's health care, women's health care, care of adults, care of the elderly, care of children and adolescents, maternal and newborn care?

3. OTHER ASPECTS

3.1. CAREER PLANNING

Consider your future goals as a family physician: what aspects of your residency have led you to shape your future career? Are there areas that you may need to prepare to help you transition to practice?

3.2. WELLNESS AND BALANCE

Reflect and comment on how you are trying to promote and maintain your own wellness in the programme.

3.3. SOCIAL ACCOUNTABILITY

Have you been involved with any committees or done community volunteer work?

3.4. EXAM PREPARATION

What efforts have you made to prepare for the CFPC Certification Examination (including whether you are part of a study group)? Have you completed practice SOOs or SAMPs?

3.5. CONTINUING PRACTICE DEVELOPMENT

Please list any courses you have taken (e.g. ACLS, NRP, ALARM).

Course	Completion Date

3.6. PRESENTATIONS

Please list any presentations you have made.

Presentation	Date

3.7. RESIDENT PROJECT

Title	
Co-Authors	
Supervisor	

Please comment on your progression towards completion of your project and any challenges you have had or anticipate.

Resident: _____

Please include completed benchmark worksheet(s), ITARs, procedure logs, leave request(s)/history.

Bi-Annual Review Completion Dates and Comments

Timing		Date	Comments/Follow-Up
Year 1	First		
	Second		
Year 2	First		
	Second		
(Year 3)	First		
	Second		

1. ADEQUATE SAMPLING (with evidence from field notes, ITARs etc)

1.1. Is there adequate evidence that the resident had appropriate sampling across all **domains** (Selectivity, Clinical Reasoning, Professionalism, Patient Centered Approach, Procedure Skills, Communication Skills)?

☐ Yes ☐ No – Comments below

1.2. Is there adequate evidence that the resident had appropriate sampling across all **locations of care** (office, emergency, hospital, home, long-term care and community)?

☐ Yes ☐ No – Comments below

1.3. Is there adequate evidence that the resident had appropriate sampling across all **lifecycles** (palliative care, men's health care, women's health care, care of adults, care of the elderly, care of children and adolescents, maternal and newborn care)?

☐ Yes ☐ No – Comments below

1.4. Is there adequate evidence that the resident had appropriate sampling for primary care procedures?

☐ Yes ☐ No – Comments below

1.5. Is there adequate evidence that the resident had appropriate feedback from patients? (Target: 10 per year)

☐ Yes ☐ No – Comments below

2. CLINICAL LEARNING EXPERIENCES

Completion of Clinical Learning Experiences (include electives/selectives)

ITARs in PGY1 Year	ITAR YES/NO	Satisfactory YES/NO

ITARs in PGY2 Year	ITAR YES/NO	Satisfactory YES/NO

Elective ITARs	ITAR YES/NO	Satisfactory YES/NO

Selective ITARs	ITAR YES/NO	Satisfactory YES/NO

2.1. Are all ITARs complete and satisfactory for each Clinical Learning Experiences since last review?

☐ Yes ☐ No – Comments below

2.2. Are the Evaluations of Educational activities and Faculty up to date?

☐ Yes ☐ No – Comments below

2.3. Has the resident shown appropriate progress with the family medicine benchmarks?

☐ Yes ☐ No – Comments below

3. ADMINISTRATIVE

3.1. Has there been adequate vacation leave or other wellness activities?

☐ Yes ☐ No – Comments below

3.2. Has the resident had other leave for any reason? (e.g. sick leave, conferences, etc)

☐ Yes ☐ No – Comments below

3.3. Has the resident had adequate attendance at academic curriculum? (Target: 70+%)

☐ Yes ☐ No – Comments below

3.4. Has the resident made adequate progress on their project? (e.g. have they defined their topic, met deadlines, etc)

☐ Yes ☐ No – Comments below

3.5. Has the resident met with their Faculty Advisor since last review?

☐ Yes ☐ No – Comments below

3.6. Has the primary preceptor log been completed since last review?

☐ Yes ☐ No – Comments below

3.7. CanMeds Modules

Module	Done	Module	Done
Aboriginal Health (FM)		Infection Control	
Apology (FM)		Patient Safety	
Critical Thinking		Resident Safety and Wellness	
Death Certificates (FM)		Residents as Teachers (PGME)	
Handover (FM)		Safe Opioid Prescribing (PGME)	
Health Law (FM)		NS Prescription Monitoring (FM)	

4. OVERALL PROGRESS

☐ Progress as Expected	☐ Some concerns about progress	☐ Not progressing as expected
Comments:		

Date Completed: _____

Resident Signature: _____

Evaluation Coordinator/Site Director Signature: _____

Program Director Signature: _____

Resident Project Guide
Department of Family Medicine

Introduction

"A strong research base is as fundamental to general practice, as to any academic discipline. Research and education are not different kinds of academic activity but complementary, the two sides of one coin. Research is organized curiosity. Curiosity involves asking questions; if others do not know the answers, research is needed. Education in which the answers are not based on research is indoctrination; research in which questions are not based on need is prevarication. The advance of general practice as an academic discipline depends on our ability to integrate research and education in the pursuit of excellence in clinical care."

Charles Bridge-Webb
Adapted from the George McQuitty Memorial Lecture, University of Calgary, 1982, Can Fam Physician 1983, Vol. 29:52

The objectives for research in Family Medicine are detailed by the College of Family Physicians of Canada. The project promotes the attainment of the four CanMeds roles: health advocate, medical expert, scholar and communicator.

All residents are required to complete a resident project as part of their residency program requirements. The resident project is an academic/scholarly one that ***must*** meet the standards described in this guide and ***must*** be completed successfully in order to fulfill the requirements of the residency training program.

The purpose of the resident project is to provide an opportunity for the resident to explore an area of personal interest in a scholarly manner. With guidance provided by their supervisor, the process involves finding answers to questions commonly encountered in primary care by critically reviewing the available literature. Where such answers are found lacking, the resident may choose to employ an appropriate methodology to design a study using proper scientific rigor to answer that question. By contributing to this scholarly activity, there is an opportunity for residents to positively impact primary care and the wider community.

There ***is no requirement to conduct a*** **research** ***study*****;** however, it is hoped that the resident project will provide the resident with the opportunity to develop or practice primary care research skills. For those with more in-depth research interests, primary care research electives are available and inquiries should go to the Site Director.

Goal:
- To contribute to the understanding and/or effectiveness of Family Practice.

Purpose:
- To develop skills that the resident can use in order to be a resource to a family practice;
- To provide an evaluation of these skills for the resident transcript.

Objectives:
- To ask a question relevant to Family Medicine.
- To develop a way of answering the question, using appropriate resources and timelines;
- To write up the project and present it orally prior to completion of the residency.

Project Goals:
- To develop skills in asking and answering questions that are important and relevant to the discipline of Family Medicine;
- To stimulate creative and original thought based on questions encountered in practice;

- To practice the fundamentals of evidence-based care or other critical inquiry;
- To be able to communicate the results clearly to colleagues;
- To promote an interest in Family Medicine research.

How to Use the Resident Project Guide

The Resident Project Guide has been developed as a resource for residents, project supervisors and project/research coordinators. The guide contains information regarding project and project form deadlines, format requirements, tips and tricks, assessments, etc. The Resident Project Guide is reviewed by the Resident Project Sub-Committee on an annual basis and updated accordingly. Residents may choose to follow the version of the Resident Project Guide released in their PGY1 year, or they may opt to follow the version released in the year in which they submit their project.

In order to ensure fairness in marking, residents are required to indicate on their project title/cover page which year's version of the Resident Project Guide they followed at the time when they submitted their final project.

Expectations:

The resident project must be aimed at answering a question in the field of Family Medicine. It can be in the form of a research project, a practice quality improvement project, a position paper, clinical educational tool, medical educational tool, literature appraisal or a health humanities project. The resident is expected to choose an area of interest to Family Medicine, propose a question, review the literature, and design a method of answering that question.

Family Medicine and Family Practice includes enhanced areas of expertise achieved and maintained by some family physicians, such as those recognized by the College of Family Physicians of Canada as Certificates of Added Competence (CACs). Approved CAC domains of care in Family Medicine include Care of the Elderly, Emergency Medicine, Family Practice Anesthesia, Palliative Care, Sport and Exercise Medicine, Addiction Medicine and Enhanced Surgical Skills.

PGY2 residents are expected to submit a written paper and give an oral presentation of their findings to their colleagues and faculty members at the ***Resident Project Presentation Day*** held at their Site Project Presentation event. The written documents will be graded and may be considered for various resident project awards.

PGY1 residents may be asked to give a 10-minute presentation discussing the progress of their projects.

Residents are welcome to submit their completed resident project in their PGY1 year; however, they are not required to do so until their PGY2 year.

Completed resident projects will be stored and available to review for internal use by residents and faculty.

Ethics Issues:

All residents who engage in research involving human beings require a full or an expedited ethics review by a research ethics board (REB). This applies also to research considered "minimal risk," for example the examination of patient charts, patient/resident/physician surveys, etc. The resident should discuss this with the Project Coordinator. *If possible, it is advised that residents should consult with the Chair of the local Research Ethics Board (REB) regarding requirements for REB applications. If REB approval is necessary, it must be ensured that all requirements of the local REB are met for the resident project.*

If REB approval is not required, residents are required to provide the appropriate REB documentation around that decision.

Resident Projects with More Than One Author

Residents are encouraged to collaborate when planning and completing Family Medicine projects. Collaboration with others must be acknowledged and explained in the manuscript. In most

circumstances, residents will collaborate on a topic but their project will ask a separate question; therefore individual manuscripts and project forms will be submitted by the primary author.

In the event that residents wish to co-author a project, we ask that this collaboration be approved by their site Project Coordinator(s) to ensure each author's contribution is substantial. Each author must outline, in a section entitled "Author Contribution", their individual contribution to the project. Each resident will be required to submit individual forms, project outline and final reports. *There will be one assessment of the project*. The project presentation may be collaborative if possible.

When collaborating as co-authors, it is important to recognize the four measures of authorship from the ICMJE:

- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
- Drafting the work or revising it critically for important intellectual content; AND
- Final approval of the version to be published; AND
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Further advice on authorship can be found at http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html

The title page must include each contributing resident's name and site. For non-Family Medicine resident co-authors, there must be some sort of identification of who they are (eg. physician from (name of clinic, hospital, etc.), pharmacist from (name of pharmacy, hospital, etc.), nurse practitioner from (name of clinic, etc.), PGY# resident from (name of program and institution)).

Type of Projects

Because different marking rubrics are used for different project types, residents are asked to submit their project as a single project type.

Projects may be submitted as *one* of the following with the project type clearly indicated on the cover page:

1. Research Project

   This involves the posing of a question, reviewing the literature, selecting the methods needed to answer the research question, collecting original data, conducting the data analysis, and reporting the findings

   Residents are encouraged to engage in original research. It is important for residents to be aware that research projects require more steps to complete than other types of projects and therefore may take longer to complete. Most research projects require approval by the local Research Ethics Board (REB). Residents are advised to speak with their Project Coordinator about the need for ethical approval for their project. If REB approval is not required, residents are required to provide the appropriate REB documentation around that decision.

2. Practice Quality Improvement Project

   This involves identifying a practice-based question (aim statement), constructing a method for measuring change, developing that change by finding evidence-based guidelines/recommendations to guide the approach to clinical care with respect to the question, reporting the results and recommendations to target population, along with reassessments after change has been initiated (PDSA cycle; *Plan, Do, Study, Act*). Ideally this will involve multiple PDSA cycles.

3. Position Paper/Essay

   This involves an extensive treatise on a topic of importance to Family Medicine. Topics can also relate to a broad range of pertinent issues such as the history of medicine, medical philosophy,

medical education, politics, etc. The report must include critically appraised evidence to support the argument being presented.

4. Clinical Education Tool
   This involves developing a tool or resource useful for the education of physicians, other health care workers, patients or the public. The educational tool needs to be accompanied by a description of how the topic was selected, a literature review and the reason for the need of the tool.

5. Medical Education Tool
   This involves developing a tool or resource useful for undergraduate or postgraduate medical education, with accompanied reason for tool and literature review to support the tool. Examples include Problem Based Learning Cases, OSCE development, online curriculum modules etc.

6. Literature Appraisal/EBM Review
   This involves a detailed review of the literature on a specific topic pertinent to Family Medicine. Original research papers* should be reviewed and appraised using critical appraisal skills.

   (* primary sources, no systematic reviews)

7. Medical/Health Humanities** *NEW*
   This new stream would require residents to ask an important question relevant to Family Medicine. The resident would conduct a review of the evidence on the topic and the final project may include an arts-based piece, or use of art in the scholarly project, both clinical and humanities. This may take the form of writing, visual art, performance (eg. dance, theatre), production or a musical composition. **While the health humanities project may be considered a category of its own, it could also be a component of any of the above categories.** For example, the resident may choose to conduct a literature review on the effect of the use of writing as a tool to prevent burnout among medical students. The final piece could be published or even incorporated into the medical school curriculum if appropriate.

   A more detailed rubric is in progress. Please contact your site Project/Research Coordinator if this type of project is of interest to you.

Project Coordinator

Each site has a Project Coordinator, whose role it is to discuss the project format and requirements with the resident on a regular basis and encourage the resident to adhere to the deadlines. In some cases the Project Coordinator may also be the Project Supervisor.

Project Supervisor

Each resident must choose a Project Supervisor (or Project Supervisors) to counsel them on the content of their project. The Project Supervisor(s) may be a clinical supervisor, another family physician, a consultant or another individual with qualifications appropriate for the selected resident's project topic.

A Project Supervisor with a faculty appointment in the Dalhousie Department of Family Medicine is required for each project. If the primary project supervisor is not a DFM faculty member, the resident is responsible to find a co-supervisor who has a faculty appointment with the Dalhousie Department of Family Medicine.

Budget

There are funds in each site's budget to cover some resident project expenses at that site. Each resident is allowed $50 for minor expenses, but it is also possible to apply for more funding. This issue should be discussed with the Project Coordinator at the appropriate site. For amounts over $50, a written budget must be submitted to the Project Coordinator at the appropriate site. All receipts must be submitted in order for expenses to be reimbursed. If funds are needed in advance, a written request can be submitted with receipts submitted at a later date.

Minimum Time Commitment (***please note timelines and conditions may vary from site to site)*:**
Residents should expect to commit at least **40 hours of work** to their project, although the actual amount of time spent on the project will depend on a number of factors. The program **may** allow the resident to use some independent learning time to work on their project, however; the amount of time permitted depends largely on the nature and scope of the project and therefore residents will need to discuss this with either their Project Coordinator or Project Supervisor. Time away from half-days back and academic half-days is not generally permitted.

Project Format
Although projects can be presented in different formats (art-work/handbooks/DVD, etc.) the project paper should be a minimum of 2500 words and a maximum of 4000 words, double spaced, 12 font, excluding tables and references, and cannot exceed 10MB.

The format of the written work should follow a scientific lay-out, including: Abstract, Introduction, Background, Study Design/Method, Results, Discussion, Conclusion/Limitations, References. Abstracts should be structured to include the following lay-out as described by the CMAJ (excluding Trial Registration) (https://www.cmaj.ca/submission-guidelines#research): Background, Methods, Results, Interpretation.

Alternatives for the word count and format will be considered for special circumstances, and must be approved by the Project Coordinator.

The project must be submitted as a single PDF.

Projects may only be submitted as a single project type. For example, a project may be submitted as a research project or a clinical educational tool; not both.

Project Cover Page
Make sure that you include a cover page (title page) with your project.

The cover page must include the following:
1. name(s)
2. title of project
3. site(s)
4. name of project supervisor
5. type of project (research, literature review, etc. – use only the headings specified under “Type of Projects”)
6. date
7. which year’s version of the Resident Project Guide the resident(s) followed during project development.

Plagiarism
Plagiarism is a serious academic offence and can lead to expulsion. Please see the Dalhousie University website on plagiarism.

http://www.dal.ca/dept/university_secretariat/academic-integrity/plagiarism-cheating.html

To fulfill the competencies of resident projects, residents must conduct their own literature search (no third-party searches). However, residents are encouraged to seek assistance from hospital or university librarians.

Timelines

PGY1 year:

- The resident must discuss the project topic with the Project Coordinator.
- The resident will select and discuss the content of the project with their Project Coordinator (and Project Supervisor if applicable) by the end of the three-month PGY1 Family Medicine clinical learning experience, but no later than the **1st Tuesday in November.**
- The resident will complete Form 1 that they will submit to their Project Supervisor and their Project Coordinator. This proposal will state their research question/objective, a brief background literature review, the type of project and the methodology they will use to answer the research question.
- Residents must have their PGY1 *Resident Project Proposal Form* (Form I) initiated and submitted via One45 by the **1st Tuesday in November** for their Project Coordinator to review/approve.
- Residents are required to distribute via One45 a *Project Supervisor Agreement Form* (Form II), which must be completed/signed by their Project Supervisor and submitted via One45 by the **1st Tuesday in December** for their Project Coordinator to review.
- Residents whose projects are research projects, must apply for approval through their local Research Ethics Board (REB). It should be noted that this can at times be a lengthy process, and residents must plan accordingly in order to allow sufficient time for punctual project completion.
- If necessary, the resident should write out a budget, and submit it to their Project Coordinator. (see below for budget guidelines)
- At some sites, PGY1 residents are required to present their proposal in a 10-minute oral format during their site's Resident Project Presentation Day (usually held in May), or at another venue, as determined by their site. PGY1 residents are to confirm details with their Project Coordinator.

PGY2 year:

- The resident will review their project progress and distribute the *Project Progress Report* (Form III) via One45 to their Project Supervisor. This form is to be submitted by their supervisor via One45 no later than the **1st Tuesday in September.** The progress report will be reviewed by the Project Coordinator.
- Once the project is complete, the resident will distribute the *Resident Project Final Approval for Assessment Form* (Form IV) to their supervisor via One45 no later than the **1st Tuesday in January**. It will be approved by their Project Supervisor as being ready to be sent out for assessment. Project Coordinators will review these forms.
- The Final Project must be submitted to the resident's site designate (named by each site), and from there forwarded to the Education Committee Secretary (fmcommittees@dal.ca) as a **single PDF document** by the **2nd Monday in February.** The PDF document must not exceed a file size of 10MB, and must be formatted in such a way as can easily be emailed and opened by project reviewers. The Education Committee Secretary will send the project to a project reviewer for assessment.
- A PowerPoint slide presentation of the resident project must be completed and submitted to the residents' site designate by the **1st Monday in May** of their PGY2 year.
- PGY2 residents will present their projects orally during their Site Project Presentation event.
- If a resident is concluding the program four months or more beyond the usual program end-date, submission of the written project can be deferred to 2 months before their concluding date, and an oral presentation will be arranged separately.

See the attached worksheet for timeline summaries. Please note that these deadlines may be modified if the nature of the project is such that data collection or analysis cannot be completed by the required

dates. In that case, the resident must discuss the new timelines in advance with the Project Coordinator and new timelines will be formally established.

Residents in the three-year integrated FM/EM program may, with permission from their Project Coordinator and Project Supervisor, extend their project timeline into the third year of their residency program.

Project Assessment

Completed resident projects should be forwarded by the site's designate (identified by each site) to the Department of Family Medicine Education Committee Secretary (fmcommittees@dal.ca) as a single PDF file by the **2nd Monday in February**. The PDF document must be no larger than 10MB, and formatted in such a way as can be easily emailed to and opened by project reviewers.

The Medical Education Committee Secretary will forward the completed resident projects to appropriate reviewers. Project reviewers are expected to complete their review within 4 to 6 weeks of accepting a project for review.

A resident project must be deemed "Acceptable" or higher for the resident to successfully complete the residency program requirements.

If a project is assessed as "Requiring Revisions," the resident and the Project Supervisor and/or Project Coordinator will be informed by the Education Committee Secretary. Once the resident has completed the required revisions, the revised project will be sent to the Education Committee Secretary in a single PDF document that is no larger than 10MB and that has been formatted in such a way as can easily be emailed and opened by the project reviewer. The Education Committee Secretary will then forward it to the original project reviewer. If, after a second revision the project is still deemed "Requiring Revisions" by the original reviewer, a second reviewer may be invited to review the project.

Late Projects

Residents who miss the final project submission date may face a delay in receiving their letter of program completion. Residents are encouraged to submit their final project by the appropriate deadline.

Non-compliance

Non-compliance with the designated deadlines may result in the inclusion of a professional misconduct note in the resident file.

Awards/Presentations

Projects submitted by the February deadline (according to project guidelines) that receive marks in the "Outstanding" range will be considered for award nominations. Select projects receiving a score in the 'Highly Acceptable' range may also be considered. Additionally, Project Supervisors and site Project/Research Coordinators may nominate for consideration any resident projects they consider to be exceptional. Award nominations include the following:

1. Dalhousie University Family Medicine: The *Dr. Doug Mulholland Award* for the best non-research and non- practice audit resident project. The projects are judged on originality, relevance to family medicine and critical thinking.
2. Dalhousie University Family Medicine: The *Dr. R. Wayne Putnam Award* for the best research or practice audit resident project.
3. Award competitions:
    a. Faculty of Medicine Research Award Competition: up to three projects are nominated from the Department of Family Medicine
    b. College of Family Physicians of Canada *research awards* for Family Medicine Residents: Up to one project is nominated from the Dalhousie University Department of Family Medicine

c. The College of Family Physicians of Canada *scholarly activity* award. Up to one project is nominated from the Dalhousie University Department of Family Medicine. This award aims to recognize outstanding family medicine scholarship performed by a resident.
d. nominee(s) for the PBSG Family Medicine Residency Scholarship Award

Resident Project Repository

A selection of completed and acceptable resident projects may be posted on Dalhousie University's Postgraduate Family Medicine Brightspace Page (under Resident Resources) for 2 years. This is to provide ideas and to serve as project examples for current Family Medicine Residents.

Questions regarding resident projects may be directed to:

Dr. Laura Sadler
Chair, Resident Project Sub-Committee
Phone: 902-473-4700 ; Fax 902-473-8548
E-mail: LSadler@dal.ca

Worksheet and Dates for Completion of Resident Project				
PGY1				
Form	**Task**	**Timelines**	**Dates**	**Task Complete**
	Meet with Project Coordinator to begin formulating a type of project	July-September	suggested by early September	
	Select Project Supervisor	July-October	suggested by early October	
	Begin conducting literature review	September-December		
Project Proposal (Form I)	Residents must initiate and complete Form I (Resident Project Proposal) for Project Supervisors and Coordinators to review. Residents are responsible for ensuring the form is completed in a timely manner, in compliance with deadlines.		**1st Tuesday in November of the resident's PGY1 year**	
Project Supervisor Agreement Form (Form II)	Residents are responsible for initiating Form II (Project Supervisor Agreement Form), to be completed and submitted by their project supervisor. Residents are responsible for ensuring the form is completed in a timely manner, in compliance with deadlines.		**1st Tuesday in December of the resident's PGY1 year**	
	If the resident project is a research project, the resident must apply to their local Research Ethics Committee for approval. (NOTE: *This may be a lengthy process and residents must plan accordingly*)	September-February		
	At some sites, Proposal Presentation Day (10-minute presentation)		**Usually in May** *(date to be determined by each site)*	

Worksheet and Dates for Completion of Resident Project				
PGY2				
Form	**Task**	**Timelines**	**Dates**	**Task Complete**
Resident Project Progress Report (Form III)	Resident must initiate Form III (Resident Project Progress Report), for their project supervisor to review and submit. Residents are responsible for ensuring the form is completed in a timely manner, in compliance with deadlines.		**1st Tuesday in September**	
Project Draft and Project Final Approval Form (Form IV)	Completed draft of project given to Project Supervisor for feedback Residents must initiate Form IV (Project Final Approval for Assessment), for their project supervisor to review and submit. Residents are responsible for ensuring the form is completed in a timely manner, in compliance with deadlines.		**1st Tuesday in January**	
Final Project	Completed **FINAL** project to be submitted by the designated person(s) at each site to the Education Committee Secretary (fmcommittees@dal.ca)		**2nd Monday in February**	
	Education Committee Secretary will distribute projects for assessment	as received		
	PGY2 residents will present their projects orally during their Site Project Presentation event.		**Usually in May** *(date to be determined by each site)*	

* indicates a mandatory response

Form-1: Resident Project Proposal.

All family medicine residents are required to complete a resident project as part of their residency program requirements. The purpose of the resident project is to introduce the resident to the process of finding answers to questions commonly encountered in primary care.

Residents are expected to submit a written paper and give an oral presentation at their site's project presentation event in their final year of residency.

Types of Projects:
- Clinical Education Tool
- Literature Appraisal / EBM Review
- Medical Health / Humanities
- Medical Education Tool
- Position Paper / Essay
- Research Project
- Quality Improvement / Patient Safety

Please submit this one45 form no later than the first Tuesday in November of your PGY1 year.

*Proposed project supervisor's full name:

*Project supervisor's email address:

Proposed co-supervisor(s) full name:

Proposed co-supervisor(s) email address:

Once the project supervisor has been named, the resident is responsible to provide them with the Project Supervisor Information Kit.

*Working Title of Resident Project:

*Type of project:

- Clinical Education Tool
- Literature Appraisal / EBM Review
- Medical / Health Humanities
- Medical Education Tool
- Position Paper / Essay
- Quality Improvement / Patient Safety
- Research
- other (if "other" please elaborate in the comment box below.)

Comment section, if "other" was selected:

Research Question/Objective

Brief background literature review

Methodology

*Brief description:

*Brief timeline:

Resident's comments for project coordinator(s):

Research Ethics Board (REB) Application Status:

	n/a	No	Yes
*Will this project require REB approval?			

If "No," please explain why:

* indicates a mandatory response

Form-2: Project Supervisor Agreement.

Please submit this one45 form no later than the first Tuesday in December of the PGY1 year.

Project Supervisor:

All residents should have a Project Supervisor and a Project Coordinator.

The Project Supervisor will counsel the resident on the content of the project. The Project Supervisor may be a clinical supervisor in the home base Family Medicine Unit, another family physician, a consultant or another appropriate individual. If someone other than a family physician is selected, it is important to obtain advice on the relevance of the project to Family Medicine from the Project Coordinator.

The Project Coordinator will discuss the project format and requirements with the resident on a regular basis and encourage the resident to adhere to the deadlines. In some cases the Project Coordinator may also be the Project Supervisor.

*I have agreed to be the Project Supervisor for this resident's project:

- No
- Yes

*Project Supervisor's full name:

Proposed co-supervisor(s) full name, if applicable:

*Are you, or one of the committee members for this resident project, a faculty member of Dalhousie's Department of Family Medicine?

- No
- Yes

*Type of project:

- Clinical Education Tool
- Literature Appraisal / EBM Review
- Medical / Health Humanities
- Medical Education Tool
- Position Paper / Essay
- Quality Improvement / Patient Safety
- Research
- other (if "other" please elaborate in the comment box below.)

Comment section, if "other" was selected:

Research Ethics Board (REB) Application Status:

	n/a	No	Yes
*Will this project require REB approval?			

If "No," please explain why:

* indicates a mandatory response

Form-III: Project Progress Report

Please submit this one45 form no later than the first Tuesday in September of the PGY2 year.

*Project title:

*Type of project:

- Clinical Education Tool
- Literature Appraisal / EBM Review
- Medical / Health Humanities
- Medical Education Tool
- Position Paper / Essay
- Quality Improvement / Patient Safety
- Research
- other (if "other" please elaborate in the comment box below.)

Comments:

*As the Project Supervisor, I have reviewed the progress of the resident project.

- No
- Yes

As the Project Co-Supervisor (if applicable), I have reviewed the progress of the resident project.

- No
- Yes

Research Ethics Board (REB) Application Status:

	n/a	No	Yes
*Will this project require REB approval?			

*Why, or why not?

	n/a	No	Yes
*If "Yes", has REB been obtained?			

If "No", what is the status/plan?

The following will be displayed on forms where feedback is enabled...

* indicates a mandatory response

Form IV: Project Final Approval for Assessment.

Please submit this one45 form no later than the first Tuesday in January of the PGY2 year.

*Project Title:

*As the Project Supervisor, I have reviewed and approved the final draft copy of the resident project for assessment:

- No
- Yes

As the Project Co-supervisor (if applicable), I have reviewed and approved the final draft copy of the resident project for assessment:

- No
- Yes

Comments:

Research Ethics Board (REB) Application Status:

	n/a	No	Yes
*Did this project require REB approval?			
*If yes, was REB obtained?			

DALHOUSIE UNIVERSITY | Family Medicine
Community. Learning. Research.

Dalhousie Family Medicine Resident Project Assessment Rubric

Research Project or Practice Quality Improvement Project

Resident: Assessor: Date:

Type of Project: ☐ Research Project ☐ Practice Quality Improvement

	Outstanding (90-100)	Highly Acceptable (75 – 89)	Acceptable (60 – 74)	Requires Revisions (<59)	
Define Research Question	▯ Clear rationale for study question ▯ Clearly stated objectives ▯ Innovative nature of project	▯ Clear rationale for study question only ▯ Clearly stated objective ▯ Study was somewhat innovative (question previously asked but interesting aspects of authors' approach to the question)	▯ Research question defined but not innovative ▯ Objectives stated	▯ Research question not defined ▯ Objectives not stated	**/10**
Relevance to Family Medicine (including domain specific competencies required for awarding Certificates of Added Competence (CAC) by the College of Family Physicians)	YES: ▯ Study question appeals to the Family Medicine community ▯ Relevance to family medicine is identified and/or discussed ▯ The project may be linked to the principles of Family Medicine.			NO: ▯ Study question is of no interest to the Family Medicine community ▯ Relevance to Family Medicine not identified or	**YES/NO** *If "NO", return project to resident for revisions. Do not grade until satisfactory*
Background Literature Review	▯ Comprehensive literature review ▯ Differentiation of levels of evidence from different sources ▯ Recent evidence reviewed	▯ Adequate literature review ▯ Recent evidence reviewed but does not differentiate levels of evidence from different sources	▯ Brief/short literature review ▯ Limited, but adequate sources used	▯ Incomplete literature review ▯ Does not include recent evidence ▯ Does not differentiate levels of evidence from different sources	**/15**
Appropriateness of Study Design (to answer the research question)	▯ Study design is scientifically sound and answers study question ▯ Methods are clearly described with appropriate citation	▯ Study design is answers study question ▯ Methods are clearly described	▯ Study design answers the question, but more appropriate designs exist ▯ Methods would benefit from further explanation	▯ Study design does not adequately answer the study research question	**/15**
Appropriateness of Data Analysis	▯ The analysis answers the study question appropriately ▯ Well described statistical analysis and rational for	▯ The analysis answers the study question ▯ The rationale is explained	▯ The analysis somewhat answers the study question but another statistical approach would be more appropriate	▯ The analysis is not able to answer the study question ▯ Inappropriate statistical tests	**/15**

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Dalhousie Family Medicine Resident Project Assessment Rubric

Research Project or Practice Quality Improvement Project

	Outstanding (90-100)	**Highly Acceptable (75 – 89)**	**Acceptable (60 – 74)**	**Requires Revisions (<59)**	
Results	Results included and clearly presented Tables/Graphs were of high standard and appropriate	Results included and clearly presented Tables/Graphs appropriate for the type of project	Minimum level of results presented Basic Tables/Graphs presented	Results inadequately presented	**/15**
Discussion / Conclusions	Proper discussion of key findings, including strengths and limitations Comparison to similar studies in the literature Conclusions drawn reflect the results Discussion of next	Discussion of key findings included Some discussion of strengths/limitations Comparison to similar studies in the literature	Brief discussion of key findings Less thorough understanding of strengths / limitations Less thorough comparison to similar studies in the literature Conclusions	Lack of summary of key findings, strengths/limitations Lack of comparison to similar studies in the literature Conclusions go beyond the limitation of the research	**/20**
Quality of Language	YES: Clear and accurate word choice Selected appropriate academic vocabulary Well structured sentences Minimal spelling mistakes and sentence structure concerns			NO: Word choices invite misunderstanding or may give offence Use consistently poor	**YES/NO** *If "NO", return project to resident for revisions. Do not*
Organization	Organized thoughts Smooth transitions Appropriate research project components	Organized thoughts Appropriate research project components	Fairly organized thoughts Appropriate research project components	Missing key elements of research project components	**/10**
Proper Citation and Quality of	Excellent citations Adequate number of references	Very good citation Adequate number of references	Good citation Adequate number of references	Improper citation	**YES/NO**
Instructions: Judge level of achievement, based on the descriptors in the box and underline some descriptors for guidance or praise. "Requires Major Revisions" must include specific descriptors and comments to help the resident improve. Only provide a final grade for those in the ***Outstanding Highly Acceptable, and Acceptable*** range. Give grades to projects requiring revisions ***only after the revisions have been***					**/100**

Updated June 2019

Feedback *(please add additional pages when needed)***:**

DALHOUSIE UNIVERSITY | Family Medicine
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Dalhousie Family Medicine Resident Project Assessment Rubric for
Clinical Educational Tool

Resident: Assessor: Date:

	Outstanding (90-100)	Highly Acceptable (75-89)	Acceptable (60-74)	Requires Revisions (<59)	
Identification of the Need for an Educational Tool	○ Problem/topic clearly identified • Objectives for development of the Tool are richly stated	Problem/topic clearly stated Objectives less richly stated	Objectives not fully stated	Problem not defined Objectives not stated	**/20**
Relevance to Family Medicine (including domain specific competencies required for awarding Certificates of Added Competence (CAC) by the College of Family Physicians)	YES: Question/Problem appeals to or is of interest or is potentially of interest to the Family Medicine community Relevance to family medicine is discussed or identified The project may be linked to the principles of Family Medicine.			NO: Question/Problem is of no interest to the Family Medicine community Relevance to Family Medicine not identified or approved	**YES/NO** *If "NO", return project to resident for revisions. Do not grade until satisfactory*
Information Gathering: Literature Review of the Identified Problem	Rich description of the literature on the identified problem/topic	Clear description of the literature on the identified problem/topic	Literature review is basic, should include other sources	Incomplete literature review to support the identified problem/topic	**/15**
Information Gathering: Researching Existing Tools	Complete description of the literature on the value of existing Tools Clearly described existing Tools	Some review of the literature on the value of existing Tools Less clearly described existing Tools	Sparse/basic literature description on existing Tools	Absent description of literature of existing Tools	**/15**
Methodology	Development of the Tool clearly incorporates literature findings Includes thorough consideration of the applicability in practice of the Tool in Family Medical Education	Development of the tool incorporates literature findings Includes consideration to the applicability in practice of the Tool in Family Medicine Education	Partial incorporation of the literature findings Some consideration to the applicability in practice of the Tool in Family Medicine Education	Inadequate incorporation of the literature findings Inadequate consideration to the applicability in practice of the Tool	**/20**

DALHOUSIE UNIVERSITY | Family Medicine
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Dalhousie Family Medicine Resident Project Assessment Rubric for

Clinical Educational Tool

	Outstanding (90-100)	**Highly Acceptable (75-89)**	**Acceptable (60-74)**	**Requires Revisions (<59)**	
Results and Discussion: The Completed Tool	The Tool is of outstanding quality Practical application into practice is straightforward and well explained Rich discussion of the likelihood of use of the Tool and its impact	The Tool is of high quality Practical application into practice is explained Discussion of the likelihood of use of the Tool and its impact	Tool is of average quality Some explanation of application into practice Some discussion of the use of the Tool and its impact	Poor quality Tool Minimal discussion of the practical application and the impact of Tool	**/20**
Quality of Language	YES: Clear and accurate word choice Selected appropriate academic vocabulary Well structured sentences Minimal spelling mistakes and sentence structure concerns Proofread adequately			NO: Word choices invite misunderstanding or may give offence Use consistently poor grammar and spelling	**YES/NO** *If "NO", return project to resident for revisions. Do not grade until satisfactory*
Organization	Organized thoughts Excellent layout of Tool Appropriate Educational Tool project components	Organized thoughts Appropriate Educational Tool project components	Fairly organized thoughts Appropriate Educational Too project components	Missing key elements of Educational Tool project components	**/10**
Proper citation & quality of references	Excellent citations Adequate number of references	Very good citation Adequate number of references	Good citation Adequate number of references	Improper citation	**YES/NO**
Instructions: Judge level of achievement, based on the descriptors in the box and underline some descriptors for guidance or praise. "Requires Major Revisions" must include specific descriptors and comments to help the resident improve. Only provide a final grade for those in the ***Outstanding Highly Acceptable, and Acceptable*** range. Give grades to projects requiring revisions ***only after the revisions have been satisfactorily completed***.					**/100**

Updated June 2019

Feedback *(please add additional pages when needed)*:

Dalhousie Family Medicine Resident Project Assessment Rubric for

Medical Education Tool

Resident: Assessor: Date:

Type of Project: ☐ Medical Educational Tool (*please confirm*)

	Outstanding (90-100)	**Highly Acceptable (75-89)**	**Acceptable (60-74)**	**Requires Revisions (<59)**	
Identification of the Need for an Educational Tool	☐ Problem/topic clearly outlined ☐ Objectives for development of the Tool are richly stated ☐ Complete description of the need for the Tool and/or the value of existing similar Tools	☐ Problem/topic clearly stated ☐ Objectives less richly stated ☐ Clear description of the need for the Tool and/or the value of existing similar Tools	☐ Problem/topic stated ☐ Objectives not fully stated ☐ Brief description of the need for the Tool and/or the value of existing similar Tools	☐ Problem/topic not defined ☐ Objectives not stated ☐ Need for the Tool and/or the value of existing similar Tools not stated	**/20**
Relevance to Family Medicine	YES: ☐ Question appeals to or is of interest to or is potentially of interest to the Family Medicine community ☐ Relevance to family medicine is discussed or identified ☐ Linking the project to the principles of Family Medicine.			☐ Question/Problem is of no interest to the Family Medicine community ☐ Relevance to Family Medicine not identified or approved	**YES/NO**
Information Gathering: Literature Review of the Identified Problem	☐ Rich description of the literature on the identified problem/topic	☐ Clear description of the literature on the identified problem/topic	☐ Literature review is basic, should include other sources	☐ Incomplete literature review to support the identified problem/topic	**/15**
Methodology	☐ Development of the Tool clearly incorporates literature findings ☐ Includes a thorough consideration of the applicability of the Tool to the defined medical education setting to be utilized	☐ Development of the tool incorporates literature findings ☐ Includes consideration to the applicability of the Tool to the defined medical education setting to be utilized	☐ Partial incorporation of the literature findings ☐ Some consideration to the applicability of the Tool to the medical education defined setting to be utilized	☐ Inadequate incorporation of the literature findings ☐ Inadequate consideration to the applicability of the Tool to the defined medical education setting to be utilized	**/20**

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Dalhousie Family Medicine Resident Project Assessment Rubric for

Medical Education Tool

	Outstanding (90-100)	**Highly Acceptable (75-89)**	**Acceptable (60-74)**	**Requires Revisions (<59)**	
Results and Discussion: The Completed Tool	The Tool is of outstanding quality Practical application is straightforward and well explained Rich discussion of the likelihood of use of the Tool and its impact	The Tool of highly acceptable quality Practical application is explained Discussion of the likelihood of use of the Tool and its impact	Tool is of average quality Some explanation of application Some discussion of the likelihood use of the Tool and its impact	Poor quality Tool Minimal discussion of the practical application and the impact of Tool	**/25**
Achievement of Goals/ Objectives	The Tool is exceptional in meeting the stated objectives for the defined medical education setting	The Tool highly achieves the stated objectives for the defined medical education setting	The Tool meets the stated objectives for the defined medical education setting	The Tool does not meet the stated objectives for the defined medical education	**/10**
Quality of Language.	YES: Clear and accurate word choice Selected appropriate academic vocabulary Well structured sentences Minimal spelling mistakes and sentence structure concerns Proofread adequately			Word choices invite misunderstanding or give offence; use consistently poor grammar and spelling	**YES/NO**
Organization	Organized thoughts Excellent layout of Tool Appropriate Educational Tool project components	Organized thoughts Appropriate Educational Tool project components	Fairly organized thoughts Appropriate Educational Too project components	Missing key elements of Educational Tool project components	**/10**
Proper citation & quality of references	Excellent citations Adequate number of references	Very good citation Adequate number of references	Good citation Adequate number of references	Improper citation	**YES/NO**
Instructions: Judge level of achievement, based on the descriptors in the box and underline some descriptors for guidance or praise. "Requires Major Revisions" must include specific descriptors and comments to help the resident improve. Only provide a final grade for those in the ***Outstanding Highly Acceptable, and Acceptable*** range. Give grades to projects requiring revisions ***only after the revisions have been satisfactorily completed***.					**/100**

Updated June 2019

Feedback (*please add additional pages when needed*)**:**

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Dalhousie Family Medicine Resident Project Assessment Rubric for
Literature Review or Position Paper

Resident: Assessor: Date:

Type of Project: ☐ Literature Review ☐ Position Paper.

	Outstanding (90-100)	Highly Acceptable (75-89)	Acceptable (60-74)	Requires Revisions (<59)	
Define question/thesis or presenting case	▯ Original question/thesis/ position presented ▯ Demonstrates the significance of the question with strong rationale ▯ Uses rich detail and identifies perceptively what is at issue	▯ Clear question/thesis/position presented ▯ Demonstrates judgment in the rationale for the importance of the question ▯ Identifies some significant points	▯ Less clear definition of the topic and question ▯ Further discussion regarding the rationale for the importance of the topic needed	▯ Vague topic presented ▯ Poorly thought-out rationale ▯ Does not match the project that was carried out	**/20**
Relevance to Family Medicine (including domain specific competencies required for awarding Certificates of Added Competence (CAC) by the College of Family Physicians)	YES: ▯ Question appeals to or is of interest to or is potentially of interest to the Family Medicine community ▯ Relevance to family medicine is discussed or identified ▯ Linking the project to the principles of Family Medicine.			NO: ▯ Question is of no interest to the Family Medicine community ▯ Relevance to Family Medicine not identified or approved	**YES/NO** *If "NO", return project to resident for revisions. Do not grade until satisfactory*
Researching/ Information gathering	▯ Conducted a comprehensive and recent review of the literature ▯ Clear and structured approach; inclusion / exclusion criteria identified ▯ Judiciously selected important sources to focus on; reject or qualify less reliable sources.	▯ Variety of sources used ▯ Inclusion / exclusion criteria identified ▯ Well-chosen sources according to clear criteria as appropriate ▯ Balanced in perspectives; take into account strengths and limitations of sources.	▯ Did not present the most relevant sources ▯ Could be more balanced in the source used ▯ Takes account of pitfalls in some sources.	▯ Fails to make use of appropriate literature ▯ Makes use of unreliable sources.	**/20**
Presenting and evaluating sources/others' perspectives	▯ Summarized diverse literature/views accurately and fairly ▯ Consistently focusses on the most central and significant ideas ▯ Critically evaluated sources/perspectives in a precise/nuanced	▯ Summarized other's view fairly, with few errors ▯ Used appropriate methodologies/standards for critique ▯ Balanced detail with focus in summary and/or critique	▯ Needs to be more fair in summarizing the views of others ▯ Should be more focused and/or fair in the criticisms ▯ Should be more judicious in honing in on what is important	▯ Presented others' view in inaccurate or unfair ways ▯ Fails to apply reasonable standards of rigour in evaluating evidence	**/25**

DALHOUSIE UNIVERSITY | Family Medicine
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Dalhousie Family Medicine Resident Project Assessment Rubric for
Literature Review or Position Paper

	Outstanding (90-100)	**Highly Acceptable (75-89)**	**Acceptable (60-74)**	**Requires Revisions (<59)**	
Applying sources; reaching conclusions, resolving case, proving thesis	Successfully synthesized and weighed diverse kinds of evidence Provided a compelling argument/evidence for conclusion, and/or a conclusion that is appropriately qualified given the	Drew plausible conclusion from the evidence and arguments Demonstrated some ability to synthesize and or evaluate diverse evidence	Should improve the argument(s) provided Recommend getting more comfortable in evaluating and synthesizing information/ reaching clear conclusion	Project fails to support views with evidence and arguments Poor synthesizing of information and reaching conclusions	**/25**
Organization	Organized thoughts Smooth transitions Appropriate literature/position paper project components	Organized thoughts Appropriate literature review/position paper project components	Fairly organized thoughts Appropriate literature review/position paper project components	Missing key elements of literature review/position paper project components	**/10**
Quality of Language	YES: Clear and accurate word choice Selected appropriate academic vocabulary Well structured sentences Minimal spelling mistakes and sentence structure concerns Proofread adequately			NO: Word choices invite misunderstanding or may give offence Use consistently poor grammar and spelling	**YES/NO** *If "NO", return project to resident for revisions. Do not grade until satisfactory*
Proper citation & quality of references	YES: Proper citations Adequate number of references			NO: Improper citation	**YES/NO**
Instructions: Judge level of achievement, based on the descriptors in the box and underline some descriptors for guidance or praise. "Requires Major Revisions" must include specific descriptors and comments to help the resident improve. Only provide a final grade for those in the ***Outstanding Highly Acceptable, and Acceptable*** range. Give grades to projects requiring revisions ***only after the revisions have been satisfactorily completed***.					**/100**

Feedback *(please add additional pages when needed)*:

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Dalhousie Family Medicine Resident Project Assessment Rubric for

Medical/Health Humanities

Please note: Medical/Health Humanities is a new project category. The grading rubric is currently being developed and will be updated once complete.

Please check with your Project Coordinator if you have questions.

Date: **Resident** **Assessor:**

	Outstanding (90-100)	**Highly Acceptable (75-89)**	**Acceptable (60-74)**	**Requires Revisions (<59)**	
Identification of the Need for an Educational					
Relevance to Family Medicine (including domain specific competencies required for awarding Certificates of Added Competence (CAC) by the College	YES:			NO:	**YES/NO** *If "NO", return project to resident for revisions.* ***Do not grade until***
Information Gathering: Literature Review of the Identified Problem					
Methodology					
Results and					
Achievement of					
Quality of					
Organization					
Proper citation					
<u>Instructions</u>: Judge level of achievement, based on the descriptors in the box and underline some descriptors for guidance or praise. "Requires Major Revisions" must include specific descriptors and comments to help the resident improve. Only provide a final grade for those in the ***Outstanding Highly Acceptable, and Acceptable*** range. Give grades to projects requiring revisions ***only after the revisions have been***					**/100**

Guide on How to Organize Resident Projects Based on Type of Project

PROJECTT TYPE	Research	Practice Quality Improvement / Audit	Position Paper / Essay	Educational Tool	Literature Appraisal / EBM Review
SECTIONS:					
Cover Page: 1 page	Must include project title, author's name, name(s) of co-author(s) (if applicable), site, name(s) of Project Supervisor(s), type of project, and date.				
Abstract: ½ page	Summary of all the sections using the headings in the left column				
Introduction: ½ to 1 page	Brief introduction to why the topic was chosen and its relevance to family medicine				
Background: 2 to 3 pages	Summary of background literature and state research	Summary of background literature and state research	Summary of background literature and the position that will be taken.	Summary of background literature and provide evidence for relevance and indicate	Summary of background to topic for literature appraisal and state
Study Design / Method: 1 to 2 pages	State objective(s). Describe study methods.	State objective(s). Describe study methods, inclusion and exclusion criteria.	State objective(s). Provide brief description of evidence development to support position (literature review).	State objective(s). Provide methodology for educational too development, audience focus, visuals, language level, tool choice (paper, video), etc.	State objective(s). Describe how review was conducted, data- bases searched, terms used for searches and inclusion/ exclusion criteria used. Method
Results: 3 to 5 pages	Present findings from data.	Present findings from data and describe the strength of the	Detail position in relation to literature/evidence and, if appropriate, make recommendations or describe the meaning of the position and how it applies and will be incorporated in family medicine	Statements need to be grounded in the literature. Describe the tool and how to implement it. Provide the tool in appendix.	Describe strength and summarize findings of literature/EBM
Discussion: 2 to 3 pages	Synthesize/ interpret findings, link back to literature, make recommendations	Synthesize the data and make recommendations /next steps.			Synthesize the literature, create meaning, and make recommendations and/or next
Strength / Limitations: ½ page	Share limitations and highlight advantages and disadvantages of the data/literature				
Conclusion: ½ page	Summarize the results				
References	References should be appropriate, relevant, and the style should be consistent.				

Tips and Tricks When Doing a Family Medicine Resident Research Project

Conducting research for your resident project can be rewarding and challenging. The following is intended to provide guidance and suggest resources to help with the research endeavor so you can competently complete your project with the time and resources you are prepared to expend. This guide is divided into 5 Steps:

Step 1: Select a topic, identify the research problem, and state a clear research question.
Step 2: Choose a research method.
Step 3: Find an appropriate supervisor.
Step 4: Write a research proposal.
Step 5: Ask the expert.

Step 1: Select a topic, identify the research problem, and state a clear research question.

Topic requirements are:

- It needs a strong relationship to family medicine
- You need to be curious/passionate about it
- It needs to address a gap in the research literature
- It needs to be doable within the allotted time and your skill set

Identifying your research problem/research question:
Selecting your research question can be one of the most agonizing and critical steps in developing a solid research study. It defines your whole process, from what background literature you need to read, guiding what method you should use, analysis required, and the findings to report in order to answer the question. Your question should be clear, focused, concise, complex and arguable. This will take time. Step away from your computer; consider what drew you to your topic. What about it animates and matters to you? Listen to yourself and start formulating your question by following your own interests. Remember, you will spend a lot of time researching and writing about the proposed project: if it does not interest you in the beginning, it will certainly become very difficult to write about in the end.

Next, extensively research your topic. What have experts published in peer reviewed journals? How have they framed their research? What gaps, contradictions, or concerns arise for you as you read, talk to people, and visit places? Would doing a local project using existing studies enhance knowledge? Consult the literature! If you aren't sure how to do this, consult a subject librarian: http://util.library.dal.ca/Subspecialists/

More on research question formulation:
Source: Practical Advice on how to formulate your research question: (edited from source http://www.chsbs.cmich.edu/fattah/courses/empirical/03.htm)

Keeping the Research Process in Focus:

- heart of the research project is the problem
- must articulate an acceptable problem
- formulate a problem that is carefully phrased and that represents the single goal of the research effort

State the Problem Clearly and Completely

- always state the problem in a complete grammatical sentence in as few words as possible
- be specific
- limit areas studied so that the study is of manageable size

Think, Consider and Estimate

- be sure of the feasibility of your study

Edit Your Writing

- choose your words carefully
- rewrite, rewrite, rewrite
- keep your sentences short

Every Problem Needs Further Delineation

- eliminate any possibility of misunderstanding
- give full disclosure of what you intend to do and not do
- give the meanings of all terms used
- state the assumptions
- state the hypotheses and/or research question

Sample Research Questions (source: http://writingcenter.gmu.edu/?p=307)

Too simple: *How are doctors addressing diabetes in the U.S.?*

Appropriately Complex: *What are common traits of those suffering from diabetes in America, and how can these commonalities be used to aid the medical community in prevention of the disease?*

The simple version of this question can be looked up online and answered in a few factual sentences; it leaves no room for analysis. The more complex version is written in two parts; it is thought provoking and requires both significant investigation and evaluation from the writer. As a general rule of thumb, if a quick Google search can answer a research question, it's likely not very effective.

Step 2: Choose a research method.

There are several methods to choose from for conducting research.

Qualitative/Exploratory Research

- Qualitative research focuses on the interpretation of a situation, a set of behaviors, or a setting.
- Analysis must take place within a context.
    - Note: Different researchers may view the same situation and obtain different results.
- Qualitative research answers "how" and "why."
    - E.g.: How do patients perceive?
- Focuses on causal relationships and their impact (outcomes).
- Quantitative Research answers "what" questions.

Descriptive Research

- Descriptive research describes data and characteristics about the population or phenomenon being studied.
- Descriptive research answers the questions "who", "what", "where", and "when."
- The research cannot describe what caused a situation. Thus, Descriptive Research cannot be used to create a causal relationship, where one variable affects another.

- Descriptive research classifies phenomena.
    - E.g.: We may simply wish to describe the participants in a study and how they act, believe, perceive the world, or look.
- Examples of research questions for descriptive studies:
    - What is the clients' degree of satisfaction with the services provided though the clinic's open access model?
    - What percentages of people living in Cairo have incomes below the poverty line?

Step 3: Find an appropriate supervisor.

A supervisor should be interested in your project and available to guide you. If you are having trouble finding one, talk to your resident project site coordinator.

***Step 4: Write a research proposal. This will also be required for ethics REB approval*.**

A research proposal is a study plan that is to be followed in the course of a research study. It is important for you to understand your objectives, method, analysis plan, any budgetary requirements, as well as how prepared you are to do the work required and if you have the needed skills. From this you can identify where you will need assistance.

Research proposal sections:

1. One paragraph **introduction** to your research question/problem, why this is important to study, relevance to family medicine. A good first line of a research proposal begins: "The research objective of this proposal is…"

2. Write a **more in-depth introduction**. After you have identified a pertinent problem and framed a purpose statement, then you need to craft an introduction. Among other things, the introduction to the proposal will include:
    a. The problem statement
    b. A brief summary of the literature
    c. A brief description of any gaps in the literature
    d. A Purpose statement as to why you are proposing the study and why others should care about the subject matter of your research proposal.

3. **Background/literature review**. Frame your project around the work of others. Remember that research builds on the extant knowledge base, that is, upon the **peer reviewed published work of others**. Be sure to frame your project appropriately, acknowledging the current limits of knowledge and making clear your contribution to the extension of these limits. Be sure that you include references to the work of others. Also frame your study in terms of its broader impact to the field and to society. Ex. "If successful, the benefits of this research will be…"

4. **Methods**. Determine the Method of Investigation. The method section is the second of the two main parts of the research proposal. In good academic writing it is important to include a method section that outlines the procedures you will follow to complete your proposed study. Many scholars have written about the different types of research methods in articles and textbooks. It is a good idea to site the method and provide a reference. The method section generally includes sections on the following:

a. Research design;
b. Sample size and characteristics of the proposed sample;
c. Data collection and data analysis procedures

5. Determine the Research Design

a. The next step in good academic writing is to outline the research design of the research proposal. For each part of the design, it is highly advised that you describe two or three possible alternatives and then tell why you propose the particular design you chose. For instance, you might describe the differences between experimental, quasi-experimental, and non-experimental designs before you elaborate on why you propose a non-experimental design.
b. Determine the Sample Size and the Characteristics of the Sample. There are several free online sample size calculators, though you will need a basic understand of statistics to know how to use and interpret them. Some sites include:
http://www.stat.ubc.ca/~rollin/stats/ssize/
http://www.raosoft.com/samplesize.html
http://homepage.stat.uiowa.edu/~rlenth/Power/
c. In this section of your research proposal, you will describe the sample size and the characteristics of the participants in the sample size. Describe how you determined how many people to include in the study and what attributes they have which make them uniquely suitable for the study.

6. Determine the Data Collection and Data Analysis Procedures

a. In this section you will describe how you propose to collect your data e.g. through a questionnaire survey if you are performing a quantitative analysis or through one-on-one interviews if you are performing a qualitative or mixed methods study.
b. After you collect the data, you also need to follow a scheme as how to analyze the data and report the results. In a quantitative study you might run the data through Mintab, Excel or better yet SPSS, and if you are proposing a qualitative study you might use a certain computer program like ATLAS.ti to perform your analysis using a specific qualitative approach such as a narrative study, grounded theory study, or framework analysis, that exposes the main themes from the proposed interviews (see Tips and Tricks on Statistics).

7. Software and analysis: There are several options for creating a database, cleaning your data and conducting your analysis.

a. The only free software for quantitative data analysis through Dalhousie is Minitab, found here: https://software.library.dal.ca/index.php . Note, Minitab is only available for PC (not Macs). User guides and tutorials can be found here: http://www.minitab.com/en-CA/training/ . Additionally, students familiar with conducting statistics in Excel can download the free add-on package to a windows suite. However, reviews demonstrate that Excel has many issues handling data correctly for analysis and is not as user-friendly as Minitab. If you can afford to buy, or find access to SPSS, it is user friendly and has a good tutorial, though it is not provided to students via Dal.
b. The top qualitative software programs are Atlas.ti, NVivo, and MAXQDA. Atlas and MAXQDA have a student version for about $99. Atlas.ti is approximately $199 for 12 months for students. Dedoose is available on 6 month ($12.95) and 9 month ($10.95) contracts for students (prices are approximate).

8. **Ethics.** You will need to address any ethical considerations and how they will be dealt with including confidentiality, data storage etc. If Research Ethics Board (REB) approval is required for your study, you should check the website for the relevant REB review. Each site has its own REB process.

Step 5: Ask the experts.

Review your proposal with your supervisor and resident project site coordinator. Depending on your research needs, you may also consult with the Research Methods Unit (RMU) at Dalhousie University. An initial consultation is free, though to use their services for data analysis is $100 an hour. Early consultation can help you avoid costly mistakes.

Tips and Tricks when Applying to a Research Ethics Board (REB) for a Family Medicine Resident Project

- When collecting data for a resident (research) project involving human beings, an ethics review from a recognized **Research Ethics Board (REB)** is required**.**

- This application requires a proposal with a brief background, methods and data analysis section. In addition, the REB is particularly interested in the **consent process** regarding research participants. It is paramount that research participants are volunteers, who are fully aware to what they consenting.

- The Tri-Council - Canadian Institutes for Health Research (CIHR), Social Science and Humanities (SSHRC) and National Science and Engineering Research Council (NSERC) – has developed a joint research ethics policy. See this link for the entire policy:
  http://www.pre.ethics.gc.ca/pdf/eng/tcps2/TCPS_2_FINAL_Web.pdf

  The Tri-Council states:
  REBs shall consider whether information is identifiable or non- identifiable. Information is identifiable if it, alone or when combined with other available information, may reasonably be expected to identify an individual. The term "personal information" generally denotes identifiable information about an individual.

  However, there are some exceptions. The Tri-Council states:
  Research that relies exclusively on publicly available information does not require an REB review when: (a) the information is legally accessible to the public and appropriately protected by law; or (b) the information is publicly accessible and there is no reasonable expectation of privacy.

- Chart reviews, or chart audits, usually require REB approval when the resident is planning to discuss the results publicly (Resident Project Day).

- Many resident projects are considered "minimally invasive" and they may qualify for an "expedited review." An expedited review usually takes between 3 to 4 weeks, while a full review may take up to 2 months.

- After REB approval has been obtained, no changes to the research instruments or recruitment strategy can be made. If that is required, the REB needs to be informed.

- Each family medicine resident, who requires REB approval, needs to obtain it in the province, or hospital, of their residency.

- Here are some links for REB websites in various provinces that residents can access for a specific REB application information and forms (each institute has a different process).

New Brunswick
https://en.horizonnb.ca/home/research/research-ethics-board.aspx

http://www.mta.ca/reb/Vitalite%20Guide%20Feb%202011%20English.pdf

Nova Scotia
https://www.cdha.nshealth.ca/discovery-innovation/ethics

https://www.dal.ca/dept/research-services/responsible-conduct-/research-ethics-.html

Prince Edward Island
http://www.healthpei.ca/reb

- Please consult with your **resident project site coordinator** regarding the need for an REB application and how to go about it.

Tips and Tricks When Doing Statistics
Family Medicine Resident Project

If you want to do a resident project that involves collecting data and requires statistical analysis, here are some tips of how you can go about that. Keep in mind that you are responsible for doing the work, and should be prepared to know how to collect data, enter data, run your own analysis and interpret your findings, though some resources are available to assist you.

ASSISTANCE RESOURCES:

BEFORE you start collecting data, find somebody you can discuss your plan and statistical needs with. It could be your project supervisor, your resident project site coordinator and/or somebody else who can help you who is experienced with statistics. Resident project site coordinators can help you find someone to assist you. Also, the Dalhousie University Research Methods Unit (see below) can be consulted. There will likely be a cost associated with receiving assistance, and these should be appropriately budgeted. Each resident has access to $50 towards their resident project. Additional funds would require an application with proposal and budget to your resident project site coordinator. Funding is at the discretion of the Department.

Dalhousie Research Methods Unit
If you need more sophisticated help you can consult with the Dalhousie Research Methods Unit http://www.cdha.nshealth.ca/discovery-innovation/research-methods-unit. The initial consultation with them is free.

Software Resources
Several software packages are available to assist with statistical analysis and they often have helpful tutorials. Here are some examples:

MINITAB
Minitab is likely the easiest solution to your statistical software needs. You can directly enter your data in Minitab or import from excel. This program is free of charge from the Dalhousie website; http://its.dal.ca/helpdesk/licences.html (not for MAC users). Minitab is useful for basic statistics, regression, ANOVA, reliability and survival analysis.

Here is a YouTube getting started video: http://www.youtube.com/watch?v=Ql88ytNBNgw
Or tutorials from Minitab: http://www.minitab.com/en-GB/training/tutorials/default.aspx

SPSS
Statistical Package for Social Sciences (SPSS) is a popular statistical analysis program that is fairly easy to learn with several resources available. Only Dalhousie University faculty can download SPSS programs. Resident project site coordinators can sometimes assist in finding access to a computer with SPSS.

Microsoft Excel
Microsoft Excel is included in most MS office suites and can be used to conduct some basic statistics and creates attractive charts and graphs. However, a quick Google search will provide concerns as the reliability of its statistical analysis accuracy, so use with caution. You can use Microsoft Excel sheets to enter data. These Excel sheets can be easily imported to the statistical package Minitab. In theory you can also import the Excel data sheet in SPSS but it has caused some problems in the past.

Here are some videos that may help with Excel sheets:

http://noether.uoregon.edu/~dps/243/EXCEL.pdf

http://people.umass.edu/evagold/excel.html

http://office.microsoft.com/en-us/training/excel-statistical-functions-RZ001091922.aspx

http://www.youtube.com/watch?v=OTz2PQ-CdJU

Statistical Analysis Software (SAS)
If you require more advanced statistical techniques than the above options provide, you may want to use SAS or STATA, and unless you have advanced training and experience, you will likely need to hire assistance. It is recommended you consult with your supervisor, resident project site coordinator and/or the Research Methods Unit.

R
R is free software for statistical computing and graphics. It compiles and runs on a wide variety of platforms such as Windows and MacOS. You can download from http://www.r-project.org/

Tips and Tricks When Creating an Educational Tool
Family Medicine Resident Project

Before you start thinking about developing an educational tool, you need to consult the literature to find out the following:

- Does a tool already exist?
- Could you revise an existing tool?
- Could you adopt an existing tool to local conditions?

If no educational tool exists for what you want to do, go back to the literature. Remember, an educational tool's information has to be grounded in the scientific literature.

Also, if you select an educational tool as your resident project, it needs to be accompanied by a literature review paper. The purpose of this is that the reviewer can assess that the information in the educational tool is scientifically sound.

Once you have determined that you want to create your own educational tool, you need to consider the following:

- Who is your audience?
- What is the message you want to provide?
- What is the medium you want to use for the educational tool?
    - Paper, Internet, Video etc.
        - Do you have easy access to such mediums?
- What reading level should you aim for? (readability)
- Should the tool be interactive, passive?
- Consider the cost of an educational tool?
    - Do you need professionals to help with the design and what is the cost?
    - Are you going to distribute the tool and how many copies and what is the cost?

Also, you need to consider if you will test your tool on the target audience. Even a small pilot test may inform you about the readability and validity of the educational tool.

An educational tool should be

- Fun
- Visually compelling
- Use images
- Limit text
- Make your material easy to understand
- Create a "story" plot

Some references that may be of interest:

http://www.ncbi.nlm.nih.gov/pubmed/23044857

http://www.ncbi.nlm.nih.gov/pubmed/22720382

http://www.ncbi.nlm.nih.gov/pubmed/21070533

Tips and Tricks When Doing a Literature Review
Family Medicine Resident Project

When doing a literature review, you need to adhere to some conventions. Before you start you may find it helpful to consult with a university/hospital librarian on how best to access resources for the literature review.

1) Research question has to be relevant to family medicine.
2) Assess the level of evidence of the studies you are reviewing (page 2).
3) Focus of literature review (page 3).
4) Create a table that is the focus of your review (page 4).
5) Do not repeat word for word what you have in the tables in the text.
6) Use the same outline as a regular scientific study.
    a. Introduction: why did you want to do this project
    b. Background: set up the research question with some general literature. i. Finish the section with a clear research question.
    c. Methods need to include the following:
        i. Search terms
        ii. Inclusion and exclusion criteria iii. Grey literature, if used
        iv. Data sets used - e.g. PubMed
        v. Number of articles pulled and ultimately reviewed
7) In the discussion describe the strengths and weaknesses of each article and synthesize the data. Use headings to help the reader. Answer the research question.
8) In the conclusion pull it all together, no new information should be added.
9) Acknowledgments: supervisor and others that may have helped you.
10) Use a standard bibliography format and do not mix bibliography styles.

LEVELS OF EVIDENCE

Level of Evidence	Study Design	Definition	*How does sleeping with a bottle of juice versus a bottle of water affect children's dental hygiene?*
1	Randomized Control Trials (RCTs)	RCTs are considered the most reliable form of scientific evidence. They involve the random assignment of participants to interventions and controls.	A group of children are randomly selected from the general population (each child has the same likelihood of being selected as all the others). This group is then randomly divided into two groups (A and B). Again, each child has an equal chance of being placed in either group. Group A is given a bottle of juice to sleep with at night. Group B is given a bottle of water to sleep with at night. The effect on the children's teeth is monitored for a set amount of time.
2	Cohort Studies	A Cohort Study is a study in which participants who presently have a certain condition and/or receive a particular treatment are followed over time. They are then compared with another group who are not affected by the condition.	A group of children who have poor dental health are followed across time. The habit of sleeping with a bottle of juice or water of the poor dental health group is compared to the sleep habits of a control group.
	Ecological/ Epidemiological Studies	Ecological studies look for associations between the occurrence of disease and exposure to known or suspected causes. The unit of observation is the population or community and may be defined in various ways.	Children with poor dental health are identified. Then correlations are made between (a) sleeping with a bottle of juice and dental health and (b) sleeping with a bottle of water and dental health.
3	Case-Controlled Studies	Case-control studies are a frequently used in epidemiological studies. Case-control studies compare participants who have a specific condition with participants who do not have the condition. Otherwise similar in order to identify factors that may contribute to the condition of interest.	Comparing children with poor dental health, with those who have good dental health who are the same age, ethnicity, socio-economic background, number of dental check-ups, etc.
	Non-Randomized Control Trials	The participants and interventions are not randomly assigned.	The first 50 to volunteer are instructed to have their child sleep with a bottle of juice, with the last 50 volunteers are instructed to have their child sleep with a bottle of water.
4	Case-Series	A number of individual cases of a particular condition are identified and followed individually over time.	Ten cases of poor dental hygiene in children are identified and intensely followed for a set amount of time.
5	Expert Opinion	The opinion of a professional who is considered an expert in their field.	The advice/opinion of a dentist who specializes in children's oral health and who has worked in the field for a long period of time.

SAMPLE PAPER OUTLINE

A review of evidence in support of school-based health promotion programs[1]

Introduction (1/2 – 1 page)

Background (1 page)
- Obesity
- Why school-based programs?

Research Question
- What are the features of a successful school-based health program?

Methods (1/2 – 1page)

Results (4 – 5 pages)
- Features of successful programs
  - Peer-led
  - Collaborative – community
  - Dedicated school health coordinators
  - Incorporates national/provincial/regional guidelines
  - Parents as integral part of program and source of support for children
  - Role of family doctors in the school-based health program model
  - Gender and other subgroup analysis

Discussion (4 – 5 pages)

Conclusion (1 page)

Acknowledgement

Bibliography

Tables
- The table becomes the central piece of your review.
- Do not repeat what is in the table in the text, but describe it in general terms.

[3] Dr. Kappagantula provided permission to use her resident project as a sample project outline and literature review table.

Sample Table for a Literature Review

Author	Design	n	Variables	Results	Limitations
Bjelland et al.	RCT	1465	Sugared beverage intake, sedentary behaviour	Preventive initiatives more effective in girls, need to study gender subgroups	Crude estimates of sedentary behaviours, sampling bias, social desirability in data
Brown T, Summerbell C.	Literature Review	38	Weight outcome	School based interventions may have benefit but inconsistent, may be short-term, girls/younger children have more benefit, physical activity must be combined with diet interventions	Heterogeneity of studies evaluated, therefore difficult to generalize any findings.
Bryn Austin S et al.	Qualitative	9	Effectiveness of *School Health Index*, Role of external facilitator	Presence of external facilitator influenced effectiveness of *SHI* and ability of schools to implement health promotion initiatives	Most schools in one geographical location (New England), reliance on self-reported data, did not include an objective data source
Card A, Doyle E.	Qualitative	40	Effectiveness of School Health Coordinator in implementing health promotion strategies in Nfld.	School health coordinator can change the approach of health promotion in schools to involve social, environmental as well as physiological health determinants	Vague descriptors regarding effectiveness of school health coordinators, results very preliminary in nature
Crawford PB et al.	Position paper	n/a	n/a	Using a bioethics framework further justifies the promotion of nutritional health through schools	n/a