

Family Medicine Clerkship Guide

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For McMaster PA Student Resource

<http://mcmasterpa.weebly.com>

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Area of Medicine:

Family Medicine

“What is Family Medicine?”

Family Medicine or general practice is a medical specialty that encompasses caring for people of all age groups, genders, diseases, and organ systems. Clinics may be run single-handedly by a family physician or by a group health network that consists of family physicians, PAs, nurses, nurse practitioners, dieticians, occupational therapists, physiotherapists, lab technicians, and/or medical aids.

Family practitioners and PAs working in such settings are usually the first set of medical eyes to diagnose a patient’s condition. Patients’ conditions could range from common cold (pharyngitis) to acute myeloid leukemia.

The most common conditions that we see in family practice are well-newborn checkup, 3-month diabetic follow-up, hypertension and dyslipidemia, yearly adult checkup, immunizations for children and adults, pharyngitis, chronic back pain, cellulitis, cerumen impaction, pregnancy (<16 weeks), headaches, sinusitis, urinary tract infections, simple lacerations, arthritis, anemia (iron deficiency, Vitamin B12), sexually transmitted infections, gastroenteritis, depression, etcetera.

Since family practice also focuses on disease prevention and health promotion, it is not uncommon to educate patients regarding smoking cessation, reduction in alcohol consumption, safe sex practice, use of oral contraceptive pills for females, adopting healthy lifestyle (including diet modification, and exercise), immunizations (publicly funded immunization for Ontario, including yearly influenza vaccine), and substance abuse.

Scope of Practice

The goal of the Family Medicine clerkship is for students to acquire a wide range of knowledge, skills and attitudes necessary for the recognition, understanding, and management of the common and unique health care problems in primary care. These learning opportunities arise in the context of long-term relationships with patients and families across a breadth of health care issues, and it is the longitudinal, comprehensive nature of Family Medicine that makes it unique.

For most family clinics, Physician Assistant clerks will be expected to perform the following: history-taking, obtaining vitals, performing physical examinations, ordering labs, referring to specialists, paperwork (WSIB forms, notes for missed work or school, insurance and government forms with physician supervision),

diagnosing conditions, educating patients, knowing pharmacological treatments and side effects, and being familiar with common Canadian guidelines for disease management.

During this rotation, the PA student will participate, in a supervised capacity, in the care of patients presenting to the family physician. Because Family Medicine encompasses a wide variety of clinical conditions and occurs in multiple different settings, not all conditions will be encountered in a single rotation. The purpose of the rotation is to develop basic skills in clinical assessment, diagnosis, and management, and to acquire the knowledge and attitudes that underlie Family Medicine.

Common tests ordered

Healthcare providers (HCPs) working in Family Medicine are usually the first ones to hear about their patients' concerns; hence, a variety of tests may be ordered to diagnose a condition or before referring to a specialist:

- Routine bloodwork
 - CBC, INR
 - Glucose, HbA1c, lipid assessment
 - LFTs, liver enzymes
 - eGFR, creatinine, extended electrolytes (Na, K, Ca, Mg, PO4)
 - Drug monitoring (for chronic narcotic users or suspected abusers)
 - Hepatitis A/B/C screening
 - PSA
 - OHIP does not pay for testing when the male's HCP does not suspect prostate cancer as a result of the findings from a routine physical examination or as a result of a patient's family history and/or race. In such case, the patient must pay \$30 for PSA testing
 - PSA testing will be paid for by OHIP if it meets the following criteria:
 - The patient has been diagnosed with, or is receiving treatment for, or is being followed after treatment for, prostate cancer
 - The patient's HCP suspects prostate cancer because of family history (one or two first degree relatives, such as father or brother), race and/or the results of physical examination (including digital rectal examination).
 - Prenatal tests (β -hCG, rubella, toxoplasmosis, blood group screening)
 - Vitamin D levels (only covered under OHIP for the following diagnoses):
 - Osteoporosis and Osteopenia
 - Rickets
 - Malabsorption Syndromes
 - Renal Disease
 - Patients on medications that affect vitamin D metabolism.
 - STI (sexually transmitted infections) screening (HIV, VDRL, vaginal or cervical swabs, urine chlamydia or gonorrhea)
 - Stool O&P, stool cultures
 - Throat swabs, sputum C&S
 - Link to the Ontario requisition commonly used in Family Medicine clinics:
[http://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/GetAttachDocs/014-4422-84~1/\\$File/4422-84.pdf](http://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/GetAttachDocs/014-4422-84~1/$File/4422-84.pdf)

- Urinalysis, urine C&S
- X-rays (chest, painful joints)
- Ultrasound (abdominal, obstetrical, effusions, painful joints)
- CT/MRI of head (chronic undiagnosed pain, headache post MVA)

Common procedures performed

Family Medicine practitioners perform a variety of common procedures – those that can be easily performed in an outpatient clinic and patients don't need to visit ER:

1. Integumentary:
 - Abscess incision and drainage
 - Cautery (chemical/electrical)
 - Cryotherapy of skin lesions; skin scraping for fungus
 - Drainage of acute paronychia
 - Laceration (simple) repair; suture and gluing
 - Pare skin callus
 - Release of subungual hematoma
 - Removal of foreign body (e.g. splinter, glass, fish hook)
 - Removal of ingrown toenails
 - Removal of sutures and staples
 - Wound debridement, dressing, and packing
2. Local Anesthetic:
 - Infiltration of local anesthetic (i.e. prior to suture placement)
3. Eye:
 - Fluorescein instillation
 - Removal of corneal or conjunctival foreign body
 - Slit lamp exam
 - Visual acuity testing
4. Ear:
 - Cerumen disimpaction
 - Removal of cerumen
 - Removal of foreign body
5. Nose:
 - Nasal packing – anterior and posterior
 - Removal of foreign body
6. Gastrointestinal:
 - Digital rectal exam
 - Fecal Occult Blood testing
7. Genitourinary and Women's Health:
 - Bimanual exam
 - Breast exam
 - Cervical and vaginal swabs
 - IUD removal
 - Pap smear
 - Urine dipstick
8. Obstetrical:

- Doppler - fetal heart sounds
 - Urine pregnancy test
9. Musculoskeletal
- Application of sling - upper extremity
 - Joints - aspiration and injection
 - Removal of slings, splints or casts
 - Splinting of injured extremity
 - Tophus aspiration (patients with known diagnosis of gout)
10. Injections and Cannulation:
- Intramuscular, subcutaneous and intradermal injections
 - Venipuncture
11. Psychiatric:
- Mini-mental state examination
 - The Montreal Cognitive Assessment
12. Other:
- Blood glucose (glucometer)
 - Electrocardiogram
 - Obtain samples for following cultures - blood, cervix, nasopharynx, rectal, sputum, throat, urethra, urine, wound
 - Peak Flow
 - PICC line removal (may have been placed in hospital for IV antibiotic administration)
 - Throat swab

What to Wear:

Family clinics generally do not see emergent or urgent cases; hence, scrubs are not necessary. It is advisable to always dress professionally. Avoid dress or attire that could be potentially offensive to your coworkers, and patients.

- Wear your Physician Assistant ID badge at all times so you can be identified.
- Avoid perfumes or strong-smelling scents as they may precipitate allergies or sensitivities.
- Most family physicians wear white coats, and recommend students do the same. Use the jacket-length white coat provided by school.
- Shoulder length hair must be secured to avoid interference with patients and work.
- Keep jewelry at a minimum (presents potential for cross-infection).
- Do not wear the following: blue jeans, shorts, sandals or open-toed shoes, midriff tops, T-shirts, halters, translucent or transparent tops, tank tops, or sweatshirts.

What to Bring:

You should carry the following with you in your coat pockets or in an easily accessible place:

- Stethoscope
- Reflex hammer
- Watch/stopwatch
- Measuring tape (useful for newborn height, weight, and head circumference measurements)
- Tuning forks
- Pocket Snellen chart (in case the clinic does not have one or the chart is inaccessible)

- Pen (s) or writing instrument
- Penlight
- Copy of mini Rx files and Toronto Notes (for reference)

What you'll learn during the rotation:

Listed below are the common medical conditions one can expect to encounter in family medicine:

Cardiovascular

- Arrhythmias (especially atrial fibrillation) and prevention of its complications
- Chest pain
- Congestive heart failure
- Coronary Artery Disease (including routine follow-up post myocardial infarction)
- Dyslipidemia
- Hypertension
- Peripheral Vascular Disease

Dermatology

- Skin rashes, lesions, and lumps (common infectious, neoplastic, and irritative conditions)
- Contusions, lacerations and wounds
- Neoplasm: basal cell carcinoma, squamous cell carcinoma and melanomas

Endocrinology

- Diabetes
- Obesity
- Osteoporosis
- Thyroid disorders

Gastrointestinal

- Abdominal pain (acute and chronic)
- Colon cancer screening
- Constipation
- Diarrhea
- Dysphagia
- Gastrointestinal bleeding (upper and/or lower)
- Nausea and vomiting
- Reflux (GERD)
- Rectal problems (bleeding, hemorrhoids, itch)

Geriatrics

- Dementia (including competency – perform MOCA +/- MMSE)
- Falls
- Medications (adherence, interactions, polypharmacy)
- Palliative care

Hematology

- Anemia
- Deep vein thrombosis and pulmonary embolism

Musculoskeletal

- Arthritis (osteoarthritis and rheumatoid arthritis)
- Back pain (acute and chronic)

- Joint pain
- Muscular problems (sprains, soft tissue injuries)

Neurology

- Dizziness
- Headaches
- Seizure
- Stroke (CVA)
- Syncope
- Tremor

Obstetrics, Gynecology, and Breast

- Breast complaints (pain, discharge, masses, breast cancer screening)
- Family planning (contraception, infertility)
- Menopause
- Menstrual problems (menorrhagia, dysmenorrhea, amenorrhea)
- Pelvic pain
- Pregnancy (including antenatal forms)
- Vaginal bleeding, discharge, itch
- Vaginitis and cervical cancer screening

Otolaryngology and Ophthalmology

- Ear symptoms (discharge, pain, tinnitus, hearing loss)
- Epistaxis
- Eye symptoms (pain, red eye, discharge, foreign body)
- Hoarseness (and other changes in voices)

Pediatrics

- Adolescent health (addictions, sexuality, mood disorders, etc.)
- Child development (well child visits, immunizations, etc.)
- Eating disorders [ADHD, autism spectrum/Asperger]
- Newborn care (breastfeeding, development, behaviour etc.)

Psychiatry

- Abuse (including domestic violence and sexual assault)
- Addictions (smoking, alcohol, illicit drugs, etc.)
- Anxiety and Mood disorders (bipolar, depression, generalized anxiety, obsessive-compulsive, stress)
- Suicidal ideation – may need to place patient on Form 1 and 42, call 911 and transfer to nearest psychiatric emergency service

Respirology

- Asthma
- COPD
- Cough
- Croup
- Pneumonia
- Shortness of breath, wheezing
- Upper respiratory tract infections (acute rhinitis, pharyngitis, sinusitis, etc.)

Urology

- Erectile dysfunction
- Genital concerns (lesions, discharge, pain, itch)
- Prostate problems (cancer, hypertrophy, prostatitis)

- Testicular and scrotal concerns (mass, pain)
- Urinary symptoms (dysuria, frequency, urgency, hematuria, incontinence)

General

- Allergies
- Fatigue
- Fever
- Nutrition and Exercise
- Sexually Transmitted Infections
- Sleep disorders

Typical Schedule:

Most family clinics are open during regular office hours in the daytime: Monday-to-Friday 9am to 5pm. Some clinics may remain open past 5pm, and also on weekends. Lunch breaks can be anywhere between 20 minutes and an hour, depending how busy the clinic is. There are no on-calls, or night shifts.

Some general practitioners also specialize – emergency medicine, internists, OB/GYN, etc. Therefore, these physicians may have clinic hours in affiliated hospitals. As their student, you may be required to attend their clinic hours, as well as, the hospital hours. As physician assistant clerks, you are expected to work 5 days/week, with one half-day as education day.

Approach

Family Medicine is quite unique than other areas of medicine as it allows you to build relationships with families, and get to know their concerns overtime. Also, it is likely that in a GP's clinic, patients will bring forward more than one concern. It is your responsibility to determine the chief complaint for the particular visit, and decide whether the subsequent concerns need to be addressed in the same visit or further appointments need to be organized.

Most family clinics today are set up such that the secretary updates the Electronic Medical Records (EMR) with one-line summary about the patient's Chief Complaint. Take 30 seconds to think about the chief complaint before approaching the patient. Have a plan of approach in mind before seeing the patient.

Below is one approach:

- Greet the patient. Assess their general physical appearance
 - Facial expression, gait
 - Clothing and paraphernalia: Are clothes appropriate for the time of year?
 - Posture
 - Odor of breath and body
 - Acknowledge the family if they are accompanying
- Start with an open-ended beginning (e.g. "What brings you in today?")
- History of present illness
- Past medical history including surgical history
- Medications and allergies
- Relevant social history
- Family history
 - Especially, inherited diseases, cardiac concerns, mental illness, cancer, high blood pressure, stroke, diabetes, tuberculosis, epilepsy, sickle cell disease, bleeding problems

- Review of systems:
 - Constitutional symptoms: fever, chills, weight loss, headache
 - Eyes: blurred vision, double vision, vision changes
 - Allergic/immunologic
 - Neurologic: dizziness, seizures, numbness/tingling,
 - Endocrine: hair loss, heat/cold intolerance
 - Gastrointestinal: nausea/vomiting, constipation/diarrhea, abdominal pain
 - Cardiovascular: chest pain, difficulty breathing, swelling, palpitations
 - Respiratory: wheezing, shortness of breath, cough, sleep apnea
 - Musculoskeletal: joint pain, muscle weakness, muscle pain
 - Ear/nose/throat/mouth: sore throat, sinus problems, hearing problems, hot flashes, excessive thirst
 - Hematologic/lymphatic: swollen glands, frequent bruising
 - Psychiatric: depression/crying, anxiety, thoughts of suicide
 - Skin: rash/sores, mole changes
 - Breast: nipple discharge, lumps, skin changes
 - Genitourinary: urinary incontinence, retention, dysuria, polyuria, vaginal/penile discharge, abnormal bleeding, painful periods, painful intercourse, fibroids, infertility
- Physical Exam, as appropriate

Please bear in mind that with most clinics using electronic medical records, the patient's demographics, PMHx, FHx, and allergies may already be in the system. It may be useful for some patients to update their social history, or medication list during their visit.

Lastly, take a moment or two to review the patient's previous charts/EMR to have a clearer idea of the patient's background and previous visits but don't let that bias or cloud any new complaints brought in by the patient.

Topics to Review

- Management of chronic diseases (asthma, COPD, HTN, diabetes, CAD, Atrial fibrillation)
 - Many patients discharged from inpatient hospital services need to be followed up in family medicine clinics
 - These commonly include: COPD exacerbation (i.e. prednisone taper), asthma exacerbation, hypertensive emergencies, first incidence of high blood pressure in ER or hospital, new diagnosis of diabetes
- Regular health exams
 - Gynecological exam – bimanual, pelvic (and obtain PAP smears)
 - Breast exam
 - Annual male exam – including prostate exam with DRE
 - Well baby check-up, including administering immunizations, and updating CDC growth charts
 - New born check-up
 - Post-op follow up
- Immunization schedule (children, elderly, yearly influenza for all patients)
- Screening standards – cancer (prostate, breast, colon, cervical)
- Common dermatological conditions seen in Family Medicine:

- Cysts, seborrheic keratosis, actinic keratosis, acne, verruca plantaris, carcinomas
- Procedures in family medicine
 - I&D, cryotherapy, cerumen impaction, intra-articular injections, excisional and punch biopsies, suture placement and removal, staple removal
- Smoking cessation discussion
- Alcohol cessation discussion
- Patient education about safe sexual practices and use of contraception
- Lifestyle changes:
- Stress management

Sample Note

Family Medicine clinics may use paper SOAP notes or online EPR resources to document patient encounters. Familiarize yourself with your clinic's preferred format.

ID: 24 y.o. F

CC: "I have extremely irregular periods."

HPI: LMP 2 months ago (pt unsure of date). Menarche at 12. Irregular – cycle every 2-3 months. Heavy cycle – need to change tampon q2-3 hours. Pt not concerned till now as not sexually active. Pt sexually active since 6 months; regularly uses condom during intercourse. Last sexual encounter – 2 weeks ago. G₀P₀A₀. Urine pregnancy test negative at home. Healthy otherwise. No recent changes in diet, weight, or exercise habits.

PMHx: Recurrent UTIs requiring abx, finished a course of Septra 1 week ago. Immunizations up-to-date.

Meds: OTC Multivitamins. No OCPs.

Allergies: shellfish

FHx: Mother required hysterectomy at age 44 for unknown reason; sister (30) has child. No constitutional delay of growth and puberty in female relatives.

SHx: No smoking, social EtOH (2 beers every weekend), no recreational drugs, sexually active – in a monogamous relationship, medical student

O/E: Vitals: 37³, HR 72, RR 16, BP 110/76, 99% on RA, weight 110 lbs, height 5"7. Well-kept. Pt appears her stated age. Normal S₁ and S₂ sounds. No murmurs. Chest clear. Abdomen benign. Bimanual and pelvic exam normal. Normal size uterus - anteverted, freely movable, non-tender, firm, smooth. Free adnexa. No abnormal discharge noted. Cervical and vaginal swabs obtained for STI screening.

A/P: 24 year old female presenting with likely primary dysmenorrhea. Urine pregnancy test negative in clinic. β-hCG ordered upon patient's insistence of ruling out pregnancy with blood test. Patient educated about the benefits about starting on low dose oral contraception. Prescription given for Tri-Cyclen Lo × 30 days. Patient advised to start on day 1 of menstrual cycle or 1st Sunday after onset of menses. Following bloodwork ordered: CBC, Na, K, Cl, Mg, PO₄, Ca, TSH, iron, ferritin, β-hCG. Patient educated about q3yearly pap smears as per Ontario guidelines. Follow-up in 1 month if bloodwork normal, earlier if indication in serum abnormalities.

Helpful References

"Go to" textbooks or sites that will be helpful for this rotation:

- Toronto Notes (handbook version)
- Rx files – Drug comparison book (handbook version)
- Anti-infective Guidelines for Community-Acquired Infections (Anti-infective Review Panel)
- Canadian Diabetes Association Clinical Practice Guidelines: <http://guidelines.diabetes.ca/>
- Canadian Hypertension Education Program 2014 Recommendations: <http://www.hypertension.ca/en/chep>
- Continuum of Stroke care: <http://www.strokebestpractices.ca/>
- Canadian Thoracic Society Guidelines: http://www.lung.ca/cts-sct/guidelines-lignes_e.php
- CDC growth charts: <http://www.cdc.gov/growthcharts/>
- Ontario Antenatal Record (to be completed by family physician if pregnant patient <16 weeks): <http://www.fammedref.org/wp-content/uploads/2011/12/Ontarioantenatalrecord2005.pdf>
- CFPC Clinical Practice Guidelines: <http://www.cfpc.ca/clinicalpracticeguidelines/>
 - Canadian Association of Radiologists
 - Canadian Cardiovascular Society
 - Canadian Hypertension Society
 - Canadian Ophthalmological Society
 - Canadian Pediatric Society
 - Canadian Task Force on Preventive Health Care
 - Cancer Care Ontario Program in Evidence-based Care
 - College of Physicians and Surgeons of Ontario
 - National Advisory Committee on Immunization
 - National Pain Centre (McMaster University)
 - Public Health Agency of Canada
 - Society of Obstetricians and Gynecologists of Canada
 - Thrombosis Interest Group of Canada
- Calculating risk percentage for neoplasm: <https://www.adjuvantonline.com/index.jsp>
 - Free to register and use
 - May be used for patients concerned about how effective chemotherapy and/or radiation will be in their particular scenario

NB: This is not an all-inclusive list and should not be used as the only source for studying during clerkship.