CPSNL
Physician Peer Review Program
(PPR-NL)

Physician Peer Review Program (PPR-NL)
Record Selection Instructions for Participant
(Off-site Peer Review: EMR)

Record Selection Instructions (EMR)

1. **Select five (5) patient charts for review by your peer reviewer.**

   Required criteria

   The patient records you select must meet the following criteria:

   1. Records must be for patients seen in the six (6) month period preceding the initiation of the practice review.
   2. Choose records from at least three separate half-day clinics during this six (6) month period.
   3. The records must contain the elements listed for the condition in the enclosed **Off-site Record Selection Grid**.
   4. Records must reflect your scope of practice as indicated in your completed **Practice Profile Questionnaire**.
   5. If the records are shared with another physician, the entries made by the physician under review must be clearly identified.
   6. Selected records should contain:
      - A minimum of 1-3 pages of progress notes, **covering at least one full year**
      - Cumulative patient profile or equivalent, if you use one
      - Consultants' referrals and responses
      - Copies of lab or other investigative reports
      - Any additional information required to illustrate the management of the disease

   Additionally

   You may consider the following when selecting charts for review:
   - You may choose your best quality charts.
   - You may choose cases that are particularly challenging.

2. **Complete the enclosed Record Selection Grid.**

   a) Create a "patient record identifier" for each of the charts you selected, using the patient's initials, MCP, system identifier (if available) and date of birth. For example, John Smith with a date of birth of October 27, 1952 would be JS-10/27/1952.

   b) List the "patient record identifier" for the chart (or charts) representing each category in the last column of the grid.

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3. Using the instructions provided, apply immediately for a *temporary user name and password* to ensure your peer reviewer can gain secure and confidential access to your electronic medical records.

This user name and password will be used by your peer reviewer to access and review the five patient records you have identified as being representative of your practice. The peer reviewer will review only the identified charts and will do so in a 'read-only' fashion.

Please note: Your peer reviewer will not contact you to request additional documents or to seek clarification on the medical records you have chosen for review. If your peer reviewer is unable to complete your chart review because of too little or too much information, we may conduct an on-site review of your practice.

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Off-site Record Selection Grid			
Category	**# of Records Required**	**Examples**	**Patient Record Identifier (Identify patient by First and Last Initial, MCP, system identifier and Date of Birth (day- month- year)**
New and Acute Presentations	2 - 4	Abdominal Pain, Chest Pain, Shortness of Breath Headache, Back Pain, Weakness/Fatigue, Weight Loss, Fever (Infant or Elderly)	
Chronic and Complex Disease Management	1- 2	Frail Elderly/Dementia, COPD, Hypertension, Diabetes, Mellitus Heart Failure, Coronary Disease Palliative/End of Life, Chronic Pain, Drug/Alcohol Misuse	
Psychosocial	1 - 2	Mood Disorders, Stress/Anxiety	
Health Monitoring Preventative Medicine	1 - 2	Well Woman/Adult, Well Child, Prenatal, Obesity, Smoking Cessation	

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Record Review Instructions
(Off-site Review)

1. Begin the review of each patient record with the index visit – that is, the visit that took place on the clinic half-day for which the patient record was selected.

2. Review forward and backwards in time from the index visit to understand the course and outcome of the condition as well as the physician's approach to management and documentation.

3. Make your working notes in an **Off-site Record Review Worksheet**. Complete one (1) worksheet per patient record reviewed.

In addition to commenting on the case-specific elements, each patient record review will inform your impression of general aspects of care and documentation (i.e., legibility, completeness, organization, judgement, and safety).

4. Review care and documentation against the following standards:

a) Standards for care and documentation identified in the **Off-site Record Review Guidelines***.*
b) Established clinical practice guidelines relevant to the circumstance(s).
c) The standard of reasonableness applied by an experienced clinician/peer reviewer.

5. Complete the following record review documents:

a) **Off-site Record Review Worksheets** (one per patient record)
b) **Off-site Record Review Summary**
c) **Off-site Record Review Report**

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Physician Peer Review (PPR-NL)

Record Review Guidelines
(Off-site Review)

Please use this document to assist you as you perform your chart review. It is intended to be a reference document to enable a consistent review of charts.

A. REQUIRED MEDICAL RECORD COMPONENTS

1. The legibility of the record to the auditor is satisfactory.
2. Documentation of the patient's name, gender, telephone number, address and date of birth is complete.
3. Documentation of the patient's MCP number is complete.
4. Documentation of patient's next of kin and emergency contact person and contact number is complete.
5. For a consultation, documentation of the name of the primary care physician and of any health professional who referred the patient is present.
6. The date of each professional encounter with the patient is documented.
7. Patient histories are recorded appropriately.
8. Physical Exams are recorded appropriately.
9. Diagnoses are recorded.
10. Requests for investigations are recorded.
11. Investigation results and consult reports are present in the record, and there is evidence that they have been reviewed by the physician.
12. Each treatment prescribed or administered by the physician (*i.e.*, dose, duration, quantity) is recorded appropriately.
13. Notation of professional advice given by the physician is recorded.
14. Notation of particulars of any referral made by the physician is recorded.
15. There is documentation of phone calls and emails.

B. RECORD KEEPING AND PATIENT MANAGEMENT TOOLS

1. The record system allows for ready retrieval of an individual patient file.
2. The record is well organized.
3. Patient Summary Sheet(s) (*e.g.*, Cumulative Patient Profile) is/are present and up to date.
4. In the event that more than one physician is making entries in the patient chart, each physician entry is identified.
5. Growth charts are present and complete.
6. Prenatal charts are present and complete.

7. Allergies are recorded.
8. Immunization records are up to date.
9. Flow sheets for chronic conditions are in use and up to date.
10. Flow sheets for health maintenance are in use and up to date.
11. Documentation of the consultation report to the referring physician is available.

C. NEW PRESENTATIONS/ACUTE CONDITION MANAGEMENT

1. The chief complaint(s) is/are clearly stated, the duration of symptoms noted, and a functional inquiry is performed.
2. Physical examinations performed with positive/negative physical findings recorded.
3. The family and past history (including significant negative observations, psychiatric illnesses, *etc.*) are recorded as appropriate to the presentation.
4. Requested lab tests, x-rays and other diagnostic investigations are clinically indicated and complete.
5. The chief complaint, history, physical findings and investigations lead to an appropriate diagnosis or differential diagnosis.
6. The treatment plan is appropriate.
7. Medications in type, dose, and duration are recorded and appropriate.
8. Discussions regarding medication side-effects are recorded.
9. Follow-up of acute conditions is appropriate.
10. Follow-up of abnormal test results is appropriate.
11. Requests for referrals are complete.
12. Emergent/urgent problems are dealt with quickly and appropriately.

D. MANAGEMENT OF PATIENTS WITH ON-GOING/CHRONIC CONDITIONS

1. The patient history is appropriate for the visit.
2. Physical examinations performed with positive/negative physical findings are appropriate.
3. Requested lab tests, x-rays and other investigations are clinically indicated and timely.
4. Co-morbidities are evaluated and considered in the treatment plan.
5. Management/treatment plan are periodically reviewed and appropriate.
6. Long-term medications are appropriate in type, dose and duration.
7. All medications are periodically reviewed and monitored as indicated.
8. Discussions regarding medication side-effects are recorded.
9. Follow-up of patients with chronic conditions is appropriate.
10. Follow-up of abnormal test results is evident.
11. Requests for referrals are complete and appropriate.
12. Narcotic addiction screening is recorded.
13. Narcotic addiction monitoring is evident.
14. Medication diversion (*i.e.*, distribution of medications to other individuals) monitoring is evident.
15. Narcotic prescribing is appropriate.

E. HEALTH MAINTENANCE

1. Periodic discussion of health maintenance (*e.g.*, regarding smoking, alcohol consumption, obesity, lifestyle, *etc.*) is recorded.
2. Periodic general assessments are performed appropriately.
3. Use of age-related familial disease screening and population based screening (*e.g.*, mammography and colorectal) is appropriate.
4. Well baby visits are conducted appropriately (*e.g.*, immunizations, growth monitoring, developmental milestones, *etc.*).
5. Prenatal care is performed appropriately.
6. Adult immunizations are discussed/performed.

F. PSYCHOSOCIAL CARE

1. Takes history of psychiatric symptoms and social issues (*i.e.*, assesses suicidality/work/home/family stressors/thought disturbances/mood, *etc.*).
2. In reference to specific clinical situations, patients are referred to support groups and patient education materials are made available.
3. The presence of physical illness is assessed to determine its influence, if any, on the psychiatric symptoms.
4. Utilization of local social services/agencies in the community is appropriate.
5. Psychotherapy sessions are appropriate (*i.e.*, include documentation of critical interventions, the physician's input, the patient's response, future care plans, frequency of sessions, discharge planning, *etc.*).
6. Mental status examinations are performed as indicated.
7. Management of suicidality is appropriate.
8. Management of homicidal risk is appropriate.
9. Management of physician-patient relationships (*i.e.*, boundaries, transference, counter- transference, *etc.*) is appropriate.
10. The use of psychotropic medication(s) is appropriate.

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Patient Record Review Worksheet
(Off-site Review)

- Do not record patient names or Health / MCP Card Numbers on this form.
- Complete one worksheet page for each patient record you review.
- Notes may be entered directly into this form (if provided electronically) or legibly handwritten and submitted as a scanned document.
- Complete the comments section for every record. Your comments may highlight exemplary care and/or documentation, areas of concern, and/or feedback for improvement.
- These working notes will inform your subsequent discussion with the reviewed physician, and when considered as a whole will support summary findings, comments, and recommendations.

Reviewed Physician's Name: _____

Peer Reviewer's Name: _____

Review Date: _____

Total # of Records Reviewed: _____

PEER REVIEW
Patient Record Worksheet

Patient Record # (1-5):
Patient Initials:__

Patient Age:_____ Patient Gender Male: ◯ Female: ◯ Other: ◯
Visit Date:_____
Presenting Problem:

Comments:

PEER REVIEW
Patient Record Worksheet

Patient Record # (1-5):
Patient Initials:__

Patient Age:_____ Patient Gender Male: ◯ Female: ◯ Other: ◯
Visit Date:_____
Presenting Problem:

Comments:

PEER REVIEW
Patient Record Worksheet

Patient Record # (1-5):
Patient Initials:__

Patient Age:_____ Patient Gender Male: ◯ Female: ◯ Other: ◯
Visit Date:_____
Presenting Problem:

Comments:

PEER REVIEW
Patient Record Worksheet

Patient Record # (1-5):
Patient Initials:

Patient Age:_____ Patient Gender Male: ◯ Female: ◯ Other: ◯
Visit Date:_____
Presenting Problem:

Comments:

PEER REVIEW
Patient Record Worksheet

Patient Record # (1-5):
Patient Initials:__

Patient Age:_____ Patient Gender Male: ◯ Female: ◯ Other: ◯
Visit Date:_____
Presenting Problem:

Comments:

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Physician Peer Review (PPR-NL)
Off-site Record Review Summary

Complete this patient record review summary after conducting your review of all patients' records. Refer to the **Off-site Patient Record Review Worksheets** you completed in the course of conducting your review in completing this summary. Once completed, please use this summary to inform the completion of the **Off-site Record Review Report**.

Please check the box that best reflects your opinion of the statement, considering the appropriateness of the physician's actions in both the evidence found in the records and, through your interview with the physician. If you select the box "Opportunity for Improvement" or "Priority Issue", you are required to document the specific recommendations for those items in the box entitled Opportunity for Improvement or Priority Issue, located immediately following this checklist.

Reviewed Physician's Name: _____

Peer Reviewer's Name: _____

Review Date: _____

Total # of Records Reviewed: _____

	Practice Strength	Consistently Appropriate	Opportunity for Improvement	Priority Issue
1. Records are organized, clear, and legible.	◯	◯	◯	◯
2. The patient's name, sex, telephone number, address and date of birth is documented.	◯	◯	◯	◯
3. The patient's health card number (if the patient has a health card) is documented.	◯	◯	◯	◯
4. The date of each professional encounter with the patient is documented.	◯	◯	◯	◯
5. The history of the presenting problem (i.e. chief complaint is clear; symptoms adequately described) is acquired.	◯	◯	◯	◯
6. Medical history, including medications and allergies is acquired.	◯	◯	◯	◯
7. Physical examination with significant positive/negative findings is conducted.	◯	◯	◯	◯
8. Laboratory tests, x-rays, and other diagnostic investigations are clinically indicated.	◯	◯	◯	◯
9. Management of immediate life or limb threatening problems is documented.	◯	◯	◯	◯

10. Signs of potentially critical illnesses (based on abnormal vitals' key signs and symptoms) are recognized and acted upon.	◯	◯	◯	◯
11. Prescribing - including type, dose, duration, and route is documented.	◯	◯	◯	◯
12. Notation of professional advice given by the physician is recorded.	◯	◯	◯	◯
13. Telephone conversations are documented.	◯	◯	◯	◯
14. Use of consultants, allied health professionals (occupational therapists, physio/speech therapists, dietitians, etc.)	◯	◯	◯	◯
15. The start and stop times for psychotherapy and counselling encounters are recorded.	◯	◯	◯	◯
16. Patient reassessment (includes assessment at appropriate intervals given the presenting clinical condition) is documented.	◯	◯	◯	◯
17. Investigation results (i.e. ECG/X-Rays) are documented.	◯	◯	◯	◯
18. A working/provisional diagnosis is based on objective and subjective findings and is formulated.	◯	◯	◯	◯
19. Patient follow-up (i.e. consultations with family physician, etc.) is documented.	◯	◯	◯	◯
20. Disposition instructions (admission/transfer/discharge)	◯	◯	◯	◯
21. Plans for follow-up are recorded when follow-up is important.	◯	◯	◯	◯

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Opportunity for Improvement / Priority Issue

Please list below the specific findings to those items that you checked "*Opportunity for Improvement*" or "*Priority Issue*", from the checklist on the previous page(s).

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Physician Peer Review (PPR-NL)
Off-site Record Review Report

Reviewer: _____ **Physician Reviewed:** _____

Date: _____

	PATIENT INITIALS/MCP #	GENDER	DOB (ddmmyyyy)	VISIT DATE (ddmmyyyy)	REASON FOR VISIT	CONCERNS (Y/N); Patient Record Worksheet #
1						
2						

	PATIENT INITIALS/MCP #	GENDER	DOB (ddmmyyyy)	VISIT DATE (ddmmyyyy)	REASON FOR VISIT	CONCERNS (Y/N); Patient Record Worksheet #
3						
4						
5						

OVERVIEW OF CHARTS

Please complete this section taking into account all patient records reviewed. Please refer to both the **Record Review Worksheet** and **Record Review Summary** documents in doing so.

	Practice Strength	Consistently appropriate	Needs improvement	Priority issue	Comments
Medical Record Keeping	☐	☐	☐	☐	
Chronic Disease Management	☐	☐	☐	☐	
Acute Disease Management	☐	☐	☐	☐	
Health Maintenance	☐	☐	☐	☐	
Psychosocial Care	☐	☐	☐	☐	
In-hospital care (if applicable)	☐	☐	☐	☐	

EXIT INTERVIEW (OPTIONAL)

Note to reviewers: The list of topics below outlines possible areas of discussion. Please complete the areas pertaining to your discussion with the physician. It is not necessary to complete all sections.

	Practice Strength	Consistently appropriate	Needs improvement	Priority issue	Comments
Clinical Assessment	☐	☐	☐	☐	
Investigation/Referrals	☐	☐	☐	☐	
Treatment	☐	☐	☐	☐	
Health Promotion/Prevention	☐	☐	☐	☐	
Context of Care (Patient and System)	☐	☐	☐	☐	
In-hospital care (if applicable)	☐	☐	☐	☐	

OVERALL ASSESSMENT

Meets standard of care: ☐ Yes ☐ No

Comments:

Practice Improvement Recommendations:

Signature	**Reviewer Name**	**Date**

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Physician Peer Review Program (PPR-NL)
Facilitated Feedback Interview Report

Date: _____

Participant: _____ College reviewer: _____

Stage 1 — Build rapport and relationship

Stage 2 — Explore reactions and perceptions of the assessment data

Stage 3 — Explore receiver understanding of the content of the data/report

Stage 4 — Coach for performance change

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Physician Peer Review (PPR-NL)

Record Review List

Dr._____
(Name of physician whose records are under review)

Instructions for College Assessor

- *List all patient files that you have reviewed during your Peer Review. A copy of this completed form will be provided to the physician whose practice was reviewed.*
- *This completed log will assist the Custodian in producing, if required, disclosure information, as required by section 48 of the Personal Health Information Act (PHIA).*

The following medical records were reviewed by an approved Peer Reviewer, working on behalf of the College of Physicians and Surgeons of Newfoundland and Labrador.

Health Card #	Patient Name	Date Reviewed

Dr._____
(Name of assessor)

***Note to the Custodian of the Medical Records:** The authority for this disclosure is subsection 41(1)(a) of PHIA, which requires disclosure to the College of Physicians and Surgeons of Newfoundland and Labrador as a body with the statutory responsibility for the discipline of a health care professional or for the quality or standards of professional services provided by a health care professional, including an investigation by that body.*

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Physician Peer Review Program (PPR-NL)
Risk and Support Factors in Medical Practice

Introduction

A variety of factors may influence the quality of a physician's practice. Broadly speaking, these factors can be considered to be physician-related (*e.g.*, age or gender) or practice related (*e.g.*, patient volume or professional isolation). Some factors pose a risk, while others are supportive of practice quality over time.

A recent research review, conducted on behalf of Canadian medical regulators, identified more than 900 published articles relevant to this issue. Even so, our understanding of the various factors that either place a practice at risk or conversely protect against it, is incomplete. While the presence of risk and supportive factors is clear, their relative strength (*i.e.*, the magnitude of positive or negative influence) and the ways in which they interact (*i.e.*, whether they potentially reinforce or mitigate one another) are less well understood.

Current consensus is that practice risk and support factors are only predictive in a general sense, and that factors tend to exert their influence over time. The impact of any one factor on an individual physician's practice is difficult to quantify and is never absolute. As an example, although physician performance tends to decline with advancing age, the degree to which this happens varies and is undoubtedly influenced by other factors, including physician health, education, practice environment, practice scope, and degree of professional isolation.

Ultimately, each physician's factor profile is unique. For this reason, it is important that individual physicians be alert to the various factors at play in their practice and take steps to reduce risks and optimize supports wherever possible; doing so can avoid care becoming compromised.

From a systems perspective, attention to physician factors, both collectively and individually, has the potential to benefit care quality. Health authorities could use an understanding of risk and supportive factors to help optimize service delivery models or policy – for example, by choosing multidisciplinary over single-practitioner clinics or reducing on-call demands for older physicians. In circumstances where risk is unavoidable, such as for a geographically isolated practitioner, specific mitigating strategies and supports could be put in place. It is likely that most physicians have an

CPSNL gratefully acknowledges the College of Physicians and Surgeons of Nova Scotia and the College of Physicians and Surgeons of Manitoba for allowing the use and adaptation of this document.

intuitive understanding of risks and supports to practice. If so, systems strategies that mitigate practice risk might actually have a positive effect on the recruitment and retention of physicians to challenging practice circumstances.

Medical regulators in Canada also have an interest in physician factors. All Canadian regulatory authorities have a mandate to promote quality in practice, usually through a combination of programming approaches, including some form of practice assessment program. Some regulators are already using physician factors, either alone or in combination, to direct their quality initiatives. The Collège des Médecins du Québec uses multi-factor rubrics to direct the activities of its quality assurance programs. In Nova Scotia, physicians' selection into different categories of the College of Physicians and Surgeons of Nova Scotia's Physician Peer Review program is determined, in part, by a review of a physician factor profile. The peer assessment component of Manitoba's Quality Improvement Program operates in a similar manner. Several other provincial regulators are either using or considering factors as a means of prioritizing physicians for quality programs or directing the nature of a physician's practice assessment.

Newfoundland and Labrador's Physician Peer Review Program – Role of Physician Factors

The College of Physicians and Surgeons of Newfoundland and Labrador (CPSNL) takes physician factors into account when allocating the resources of its Physician Peer Review program (PPR-NL). An analysis of risk and supportive factors is used to decide the nature of each physician's participation in the program. Physicians with relatively more risk than supportive factors in practice may be assigned to a Category 2 review (review of submitted practice information and off-site chart review) or a Category 3 review (review of submitted practice information, and on-site office visit by a CPSNL peer assessor). Physicians with a majority of supportive factors may be assigned to a Category 1 review (review of submitted practice information, and provision of quality improvement supports).

This document will provide CPSNL peer assessors, as well as program participants, with a qualitative overview of important risk and supportive factors. It is not intended to be a comprehensive review of the academic literature in this area; however, source articles of potential interest to the reader are listed in Appendix A. Appendix B provides a quick-reference summary of important factors.

Risk Factors for Practice Quality

1. Advancing Physician Age and Time-in-Practice

Physician age and 'time in practice' are highly correlated, and may be considered together. The risk to practice quality associated with physician aging is multifactorial and complex. It is important to note that advancing physician age is more commonly associated with other risk factors such as male gender, solo practice, or lack of certification. However, when these potentially confounding factors are accounted for, there remains a consistent and significant negative correlation between advancing age and practice quality.

The decline in performance for an older physician may be thought of in terms of three broad domains:

(1) Currency of the physician's knowledge base: The practice risk associated with advancing age relates to the currency of the physician's knowledge base. Medical knowledge changes rapidly. Without specific efforts to keep current, time in practice will inevitably erode competence, regardless of the practitioner's age. Because memory tends to decline with age, this risk to currency in knowledge may accelerate over time.

(2) Cognitive decline: The cognitive decline that occurs with aging is well-established, though there is considerable individual variation in terms of when and how this manifests. Beginning as early as the sixth decade of life, it may impact memory and clinical reasoning. While the impact of aging on a physician's practice will certainly vary, it would be unrealistic to assume that any practice will be entirely immune.
It is likely that age and work experience confer some benefits on some aspects of practice. Research shows that older, experienced physicians may actually be better at making certain decisions or diagnoses, particularly when pattern recognition plays a key role. Conversely, these same physicians may be at greater risk for making errors when faced with ambiguous presentations or unfamiliar conditions. The reason appears to be a reduced ability to engage complex reasoning skills, resulting in a flawed reliance of pattern recognition, leading to premature diagnostic closure. In simpler terms, older physicians may function very effectively in familiar circumstances, when managing typical examples of a condition. Faced with rare or unfamiliar conditions, or conditions manifesting in an atypical manner, they are at greater risk for making mistakes.

(3) Physical and physiologic changes: Such changes are another variable consequence of aging. Balance, strength, manual dexterity, visual and auditory acuity all decline with age. To a varying extent, each may be relevant to a physician's performance in practice.

While there is no specific antidote to aging, mitigating strategies of particular relevance to the older physician may include:

- Paying particular attention to your physical and mental well-being;
- Reducing the pace of practice;
- Allowing more time for decision making, particularly in uncertain circumstances;
- Avoiding practice environments with a high degree of diagnostic uncertainty, *e.g.*, episodic or emergency care;
- Avoiding shift work, particularly night shifts, whenever possible;
- Reducing practice scope to focus on areas of strength and familiarity;
- Employing memory aids, algorithms and point-of-care resources;
- Wherever possible, working and interacting clinically with capable colleagues and learners; and
- Making specific additional efforts to stay current through continuing professional development.

2. Professional Transitions / Changes in Scope of Practice

Scope of practice is often thought of in terms of the numbers and types of patients cared for, the conditions commonly encountered, and the procedures performed in practice. Beyond this traditional view, scope should also consider the environment (facility and community) in which care is provided, the colleagues with whom one collaborates, and the material resources available. Finally, some physicians may have academic (education or research) or administrative aspects of scope.

To a varying degree, any change in a physician's scope of practice may pose a risk to quality. Minor changes, such as modifying your approach to a surgical procedure may be reasonably straightforward. Others, such as moving from the practice of General Surgery to Family Medicine are complex and fraught with risk.

Using a broad definition, professional transitions may be thought of as a change in scope of practice. Examples of significant transitions would include moving between: residency training and independent practice, one health care facility and another, countries or cultures, and full practice towards retirement. All may carry significant risks to practice quality, and therefore merit careful planning and support.

Physicians making a major change to their practice scope are, in most jurisdictions, required to consult with their regulatory authority (College). When planning for a change in scope of practice, the following represents a general approach to reducing risk:

- Take the time to identify what skills or competencies are required to function safely in the new environment. Consider not only the Medical Expert competencies required, but also those required to be an effective Leader, Communicator, or Collaborator;

- Create and follow a formal plan for training and orientation, addressing these required competencies;

- Identify valid forms of assessment (e.g. feedback from others, outcomes data), necessary to measure and modify your performance during and after the transition; and,

- If necessary, engage a competent mentor or supervisor.

3. Male Gender

Male gender is, for obvious reasons, a controversial risk factor for the provision of quality care. In part, this may be a reflection of the degree to which male gender may be confounded by variables such as age, practice location, and specialty. Irrespective of these factors, male gender is frequently identified as an independent predictor for poor outcomes in practice assessments conducted for a variety of purposes. Furthermore, research studies on practice indicate a higher risk for male physicians in a number of important adverse measures, including increased volume of disciplinary complaints, non-compliance with practice guidelines, poor record keeping, and poor attention to professional development.

Supportive factors relevant to male gender are largely speculative and may be general in nature. For example, it is known that physician communication is a frequent cause of disciplinary complaints. Male physicians may therefore wish to consider their communication style with patients, particularly when addressing an adverse event. Specific attention to record keeping would also seem warranted.

4. Poor Performance in Certifying or Licensure Examinations

Full licensure in Canada requires that a physician hold both the Licentiate of the Medical Council of Canada (LMCC) and certification by one of our certifying colleges, typically the Royal College of Physicians and Surgeons of Canada (RCPSC) or the College of Family Physicians of Canada (CFPC). Some, but by no means all, international jurisdictions have similar certifying or licensure examinations.

There is good evidence correlating poor performance in national examinations, or lack of specialty certification, with poor performance in various aspects of practice. Negative outcomes include a greater likelihood of disciplinary complaints, incorrect diagnoses, poor performance on practice assessments, and adverse patient outcomes. It is important to note that adverse outcomes are not necessarily directly related or limited to specific areas of poor examination performance. In this respect, poor exam performance may be a general flag for poor practice.

Mitigating the risks of poor examination performance is challenging. Licensing and certifying examinations are not designed to be reliably diagnostic of a physician's specific

strengths or weaknesses. Consequently, they may offer little concrete guidance to test takers in terms of further professional development.

Nonetheless, both passing and failing candidates are well advised to take note of the examination domains in which they performed poorly. Physicians who have repeatedly failed examinations should look for patterns of strength and weakness over time; weaknesses consistently identified over multiple attempts at an examination are more likely to be valid and worthy of attention.

A healthy approach to continuing professional development, ideally guided by assessment and data from practice, is a physician's best defence against gaps in skill or knowledge.

5. Practice Volume

Numerous studies have been published linking improved outcomes, particularly for medical procedures, to higher volume in practice. Implicit in this is that the practitioner has been trained to perform the procedure in the correct manner. Conversely, low volume practices may not offer sufficient exposure to refine and maintain one's skill.

What is not clear is how overall practice volume (*i.e.*, patients seen per hour or days worked per week) correlates with outcome. In part, this is due to difficulty in defining a "high" or "low" volume practice from one specialty or practice context to another. Identified outliers (*i.e.*, unusually high or low patient numbers per unit of time) likely carry corresponding risk. This risk may be more pronounced for older practitioners, whose ability to cope safely with high volumes is more limited. Conversely, very low volume or intermittent practice may lead to erosion of skills and lower standards of care.

Mitigating strategies will vary:

- Be aware of practice norms and apply caution if you are an outlier in terms of either very high volume or low volume practice;
- Be aware that there may be a lower competence limit for some procedures/types of care;
- Engage with peers and follow established guidelines for procedural practice;
- Tailor volume to physician factors (*e.g.*, age or wellness) and context (*e.g.*, patient complexity or practice resources); and,
- Seek educational strategies, such as simulation, to manage risk related to clinical scenarios or procedures not commonly encountered.

6. Training Outside the Current Practice Jurisdiction

Multiple studies have addressed the risk associated with having trained outside one's current practice jurisdiction; typically in another country. However, the consistency and strength of association is unclear. In part, this is likely due to the significant differences in training between and even within jurisdictions. Although in some circumstances risk may be a quality-of-training issue, it is likely that there are numerous other factors at work in what for many physicians constitutes a major change in scope of practice. Constituent issues may include:

- Changes in the types of conditions encountered;
- Differences in available resources;
- Relative lack of professional contacts/professional isolation;
- Practicing in a new/secondary language;
- Cultural differences; and,
- Different expectations for professional behaviour.

Mitigation strategies are outlined above, in the section on changing scope of practice.

Support Factors for Practice Quality

Physician Wellness

Human – and therefore physician – performance is necessarily linked with physical and mental well-being. This is by no means unique to the practice of medicine.

As a physician, you are arguably your practice's most valuable resource and central to the quality of care provided. While the majority of physicians enjoy the practice of medicine, it is time-consuming and sometimes stressful. Professionalism in medicine often requires placing the needs of patients ahead of your own needs. However, doing this exclusively, and over a long period of time is unlikely to benefit either party.

Wellness strategies are not unique to medical practice. They include:

- Paying attention to work-life balance, including time for family, friends and self;
- Exercising regularly;
- Having regular, nutritious meals;
- Paying attention to sleep hygiene, particularly around on-call and shift work;
- Practising mindfulness;
- Attending to preventive and active health issues through your own physician(s); and
- Adapting workload and scope to accommodate physical and mental health, stress and aging.

Peer Engagement

Numerous studies have identified a negative correlation between professional isolation and quality of practice. Professional isolation should be considered less in terms of geography and more in terms of the number and types of interactions with medical colleagues in the course of your work. Using this definition, it is easy to see that an urban physician may, in some circumstances, be more professionally isolated than their counterpart in a rural setting.

Regular interactions with medical colleagues and trainees – particularly in the clinical environment – provide a strong opportunity and stimulus for learning. New knowledge and ideas are exchanged. Outdated assumptions and practices may be challenged. Consultations with competent peers, whether formal or informal, are an important way of either affirming an approach to patient care or raising appropriate alternatives. Conversely, the absence of regular professional interaction creates an environment in which a good practice may stagnate over time, become outdated or fall into poor habits.

Examples of beneficial professional interactions include:

- Collaborative patient care (*e.g.*, multidisciplinary teams or units);
- Clinical and non-clinical teaching of (or by) others; and
- Interactive professional development (*e.g.*, rounds, journal clubs, on-line discussion forums).

Some physicians' practice circumstances do not readily allow for daily interaction with peers through collaborative practice. In such cases it may be necessary and appropriate to seek out collegial interaction through other activities, such as:

- Interactive professional development (as above);
- Volunteering to participate in standard setting exercises or the assessment of peers (*e.g.*, acting as a peer reviewer, writing test items, volunteering as an observer or examiner for a local examination);
- Hosting trainees in your practice;
- Spending time in another physician's practice (Operating room assist, observation of care); and,
- Seeking feedback on your approach to care, such as from consultants to whom you regularly refer.

Continuing Professional Development (CPD)

As referenced above, medical knowledge and best practices change at an extraordinary rate. As such, CPD is not only a support for quality practice but is arguably essential to maintaining quality over time. All medical regulators in Canada require that physicians participate in a recognized CPD framework as a condition of licensure.

It is critical to note that simply participating in CPD and logging credits may have only a modest effect on practice quality. In part, this may reflect how physicians choose their CPD activities. Physicians frequently pursue CPD in areas for which they have a specific interest and may already excel. However, CPD is more likely to be impactful when it is undertaken to address an identified gap in a relevant aspect of practice.

Practice assessment is key to effective professional development. Physicians too often rely on intuition when identifying their strengths and weaknesses in practice. The unfortunate reality is that all human beings, not just physicians, are quite limited in their ability to identify the things they do poorly. Seeking external sources of assessment or feedback is far more likely to drive effective learning and practice change but is not commonly used. Obtaining external data can be challenging and time consuming, but a culture of quality improvement is making this easier over time.

Using external assessment methods to identify weaknesses, drive learning and assess the impact of change are key elements of a quality improvement (QI) approach.

The educational literature does offer some guidance on how to maximize the impact of CPD on practice quality, including using a QI strategy:

- Choose CPD activities because of their clear relevance to your scope of practice, rather than out of habit, ease of access or pleasant geography.
- Think broadly about the competencies necessary to practice effectively, including your “nonmedical expert” roles. Your ability to communicate with patients, manage a practice or critically appraise an article in the literature may be just as important.
- Use data, feedback from others, formal and informal practice assessments (*e.g.*, self-audit, peer review) to identify performance gaps and then deliberately seek out CPD resources to address them. Again, assess your practice broadly, not just your medical expertise.
- Consider what sort of learning environments you find most effective and seek them out. Most likely, different learning environments will be identified to fill different needs.
- While unaccredited activities such as self-directed reading may be of benefit, include high quality accredited activities in your CPD plan.
- Include interactive group activities in your learning. Group learning is a form of peer engagement, offering opportunities to debate, contrast or reinforce approaches to practice.
- Develop and execute a specific plan to incorporate new learning into practice. Will new resources be required? Will successful change require the engagement of others? What might get in your way?
- Assess the impact of any practice change on quality and outcomes. What does the feedback or data tell you? Did you achieve the desired effect? If not, consider what further action may be required.

The Action Plan activity in the final stages of the CPSNL's peer assessment program will involve identifying a practice change or learning opportunity and will incorporate some of the above points.

Summary

Physician and practice-related factors undoubtedly influence the quality of medical care. Although we can identify factors that either pose a risk to or support practice quality over time, their relative influence and interactions are incompletely understood.

A physician's factors profile is certainly unique and subject to change over time. Individually, physicians must remain alert to their factors profile, taking steps to mitigate risk and promote quality wherever possible. From a systems perspective, attention to risk and supportive factors provides an opportunity to support at-risk physicians and improve care quality.

Appendix A

Articles and Resources of Potential Interest

Wenghofer E etal, Factors Affecting Physician Performance: Implications for Performance Improvement and Governance. Healthcare Policy, Vol. 5, No. 2, 2009

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