

HEALTH SCIENCES

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Background

- Older adults are frequent users of primary care, accounting for 1/3 of family physician services.
- Family physicians have different levels of knowledge and skills to care for older adults, which may influence care quality and health outcomes.
- High-quality primary care has the potential to address the complex medical needs of older adults.

Objective

• To establish consensus on **measurable**, **practice**based process metrics that characterize quality of care for older primary care patients.

Research Question:

Within the framework of secondary, administrative data as a lens to understand primary care practice, can a technical expert panel establish consensus on which practice-based process metrics suggest better versus worse quality of care for older patients?

Approach

- **Design:** Two-phase RAND/UCLA Appropriateness Method (RAM) study.
- Participants: 10 pan-Canadian clinicians and researchers with expertise in primary care for older adults.
- **Setting:** Population-based health administrative data holdings at ICES in Ontario, Canada.
- Study Phases:
- **1.** Literature review \rightarrow Generated a candidate list of practice-based quality indicators.
- 2. RAM Round #1 \rightarrow Panellists rated indicators in an online questionnaire.
 - Indicators retained if >50% of panellists rated the indicator between 7 to 9 for each criterion.
- **3.** Developed technical definitions for each endorsed indicator using administrative data holdings.
- 4. Virtual synchronous meeting with panellists to discuss endorsed indicators and specifications.
- 5. **RAM Round #2** \rightarrow Panellists rated indicators and technical definitions in an online questionnaire.
- Indicators retained if >50% of panellists rated the indicator between 7 to 9 for the criterion.
- Analysis: Statistical integration and content analysis.

References

I. Frank C, Feldman S, Wyman R. Caring for older patients in primary care. Can Fam Physician. 2018;64:416–8. 2. Slade S, Shrichand A, Dimillo S. Health Care for an Aging Population: A Study of how Physicians Care for Seniors in Canada. Ottawa, Ontario: Royal College of Physicians and Surgeons of Canada; 2019. B. Charles L, Triscott JAC, Dobbs BM, McKay R. Geriatric core competencies for family medicine curriculum and enhanced skills: Care of elderly. Can Geriatr J. 2014;17(2):53–62. 4. Donabedian A. Evaluating the quality of medical care. The Milbank Quarterly. 2005 Dec;83(4):691. 5. Campbell SM. Research methods used in developing and applying quality indicators in primary care. Qual Saf Health Care. 2002 Dec 115];11(4):358–64.

Quality Indicators for Older Adult Primary Care using Health Administrative Data: A RAND/UCLA Appropriateness Method Study



1 IF an older primary care patient is eligible for	4	IF an older primary care patient is diagnosed 7	IF an older primary care patient is prescribed	10	IF an older primary care patient is not known
the influenza vaccine, THEN the patient		with dementia, THEN the primary care provider	medications from multiple providers, THEN the		to have already received a pneumococcal
should be administered the vaccine annually.		should provide dementia care management.	primary care provider should conduct a		vaccine or if the patient received it more than
			collaborative medication review.		5 years ago, THEN a pneumococcal vaccine
					should be administered.
2 IF an older primary care patient requires a	5	IF an older primary care patient requires 8	IF an older primary care patient presents with	11	IF an older primary care patient has
new medication, THEN the primary care		medication, THEN the primary care provider	memory concerns, THEN the primary care		congestive heart failure, THEN the primary
provider should not use benzodiazepines or		should avoid prescribing potentially	provider should perform tests aligned with the		care provider should order ACE inhibitors,
other sedative-hypnotics as the first choice.		inappropriate medications (e.g., Beers list).	5th Canadian Consensus on Dementia.		ARBs, beta-blockers, or SGLT2 inhibitors.
3 IF an older primary care patient requires a	6	IF an older primary care patient receives a new 9	IF an older primary care patient has chronic	12	IF an older primary care patient is diagnosed
new medication, THEN the primary care		diagnosis of dementia and is deemed unsafe	obstructive pulmonary disease, THEN the		with dementia, THEN the primary care
provider should not prescribe a medication		to drive, THEN the primary care provider	primary care provider should recommend		provider should consider alternatives to
with strong anticholinergic effects if		should report the patient to the Ministry of	influenza and pneumococcal immunizations.		antipsychotics as the first choice to treat.
alternatives are available.		Transportation.			

Figure 3. Endorsed Quality Statements

uded texts and extracted 500 indicators. Thents after screening and refinement.	 Virtual Synchronous Meeti Reviewed 19 technical def Unanimously omitted 4 qu
	RAM Round #2
anged from:	Median scores ranged fror
teness: 5.5 to 9.0	Appropriateness: 6
e: 6.0 to 9.0	Importance: 6.5 to 8

- Panellists' comments: justified/clarified ratings and
- suggested revisions to wording of quality statements.

- finitions (rank-ordered). ality statements.
- 12 indicators met threshold (3 eliminated)
- Panellists' comments: suggestions to technical
- definitions and limitations of secondary data.

	n=61	n=55	n=19
	n=2	n=2	
	n=2 n=1	n=2 n=1	
	n=1	n=1	
	n=3	n=1	n=1
		n=2	
	n=2	n-7	
3	n=26	n=24	
			n=6
	n=2	n=2	n=2
			n=6
	n=21	n=18	
	Identified in literature review for rating	Endorsed in first questionnaire	Technical definitions reviewed during expert panel meeting

Figure 2. Flow Diagram of Endorsed Indicators, by Priority Topic



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BIG DATA & GERIATRIC MODELS OF CARE

Next Steps

Ing

- m:
- 0.0 to 9.0

Endorsed in second questionnaire Included in final indicator set
n=4
n=2
n=5
n=1
n=12

Operationalize indicators within administrative data to examine elderly-focused primary care quality.

Refine technical definitions by testing their measurement.

> "A staple indicator in primary care" - Panellist #10. Indicator #1

"This indicator is appropriate, but as the discussion suggest[ed], will be very hard to measure/assess so my rating goes down"

- Panellist #3, Indicator #2

Table 1. Expert Panel (n=10)

Characteristic	Count (%)
Sex, female	7 (70)
Age* (years)	49 (11.25)
Place of residence/work	
Ontario, Canada	9 (90)
Elsewhere in Canada	1 (10)
Primary location of	
residence/work	8 (80)
Urban areas	1 (10)
Rural areas	1 (10)
Both urban and rural	
areas	
Race	
White	7 (70)
East Asian, South Asian,	3 (30)
or Southeast Asian	
Higher education	
Graduate degree	8 (80)
(Master's or Doctorate)	
Medical Doctor (MD)	9 (90)
Research experience*	14 (8.75)
(years)	
Clinical practice*a (years)	22 (14)
* Median and interquartile range (IC	QR)

^a Among those who identified as clinicians

Significance

- We solicited expert feedback and achieved **consensus** on measurable practice-based quality indicators.
- Examining these indicators may identify systematic challenges and inform quality improvement activities (e.g., resources, education, incentives, policies to support elderlyfocused primary care).

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Ethics Approval

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