

# Appropriateness of Admissions to Long-Term Care Facilities in NL

## Objective

To estimate the proportion of potentially inappropriate admissions to Long-Term Care Facilities (LTCF) in NL.

## Practice Points

1. Admission to a LTCF may be necessary when a person has extensive dependence for activities of daily living (ADL) and/or has severe cognitive impairment.

In the absence of these disabilities, admission to a LTCF may be inappropriate and survival is likely longer.

2. The Resource Use Group (RUG) classification is a hierarchical categorization of the primary reason for admission in LTCF residents, with level 1 having the highest use of resources and level 7 the lowest. Level 1 is for special rehabilitation, level 2 for extensive services, level 3 for special care, level 4 residents are clinically complex, level 5 have impaired cognition, level 6 have behaviour problems, and level 7 have physical dysfunction.
3. The Resident Assessment Instrument (RAI) is a comprehensive care and service-planning tool completed on admission and every quarter thereafter.
4. The per cent of newly admitted LTC residents who could potentially have been cared for at home (because they had a clinical profile similar to the profile of clients cared for at home with formal supports) was 7.7% in NL and higher in Canada (11.2%). This was reported by CIHI.

## Data

- The Resident Assessment Instrument-Minimum Data Set (RAI-MDS) 2.0<sup>®</sup> completed on new admissions to LTCFs during 2019/20 fiscal year in NL and on all residents of LTCFs during the last quarter of the year were analysed.
- Appropriateness is defined as having extensive-total dependence for ADLs and/or severe-very severe cognitive impairment. However, absence of these two characteristics does not necessarily conclude the admission was inappropriate.

- Four RUGs groupings were analysed: residents who fulfilled criteria for levels 1–3, level 4, levels 5–6, and level 7.

## Results

### A. Incident cohort of new admissions to LTCF

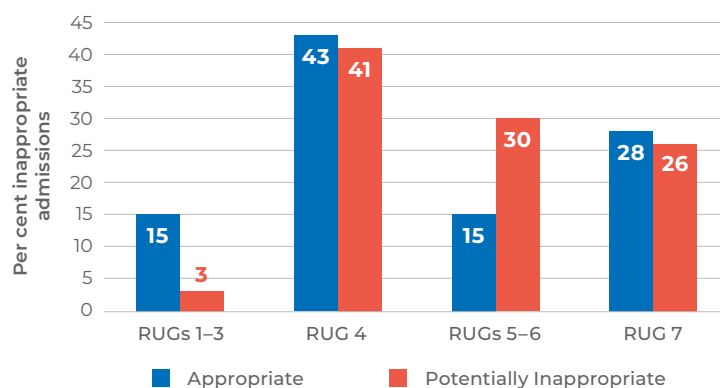
- 82% of new admissions fulfilled the criteria for appropriate admission (N=807) and 18% were potentially inappropriate (N=178).

**Table 1. Demographic and Clinical Characteristics of New Admissions to LTCFs Comparing Appropriate (N=807) to Potentially Inappropriate (N=178) in NL**

		Appropriate %	Potentially Inappropriate %
Gender	Female	63	59
	Male	37	41
Age	<65 years	5	4
	65–84 years	56	61
	≥85 years	39	35
RUG Score	RUGs 1–3	15	3
	RUG 4	43	41
	RUGs 5–6	15	30
	RUG 7	28	26
	CHESS* health instability	8	0
Continence	Bowel	27	78
	Bladder	20	66
Drugs	Antipsychotic	31	34
	Anti-depressant	46	43
	Anti-anxiety	25	19
	Hypnotic	18	21
	Diuretic	30	30
Restraints	Limb	1	1
	Trunk	5	1

\*CHESS: Changes in Health, End-Stage Disease, Signs, and Symptoms Scale

- The admissions that were potentially inappropriate differed from those deemed appropriate in that the primary reason for admission was very unlikely to be for high resource reasons, but more likely to be attributed to cognitive impairment or behaviour problems.
- Manifestations of frailty, such as bowel and bladder incontinence, were far more likely in the appropriate group.

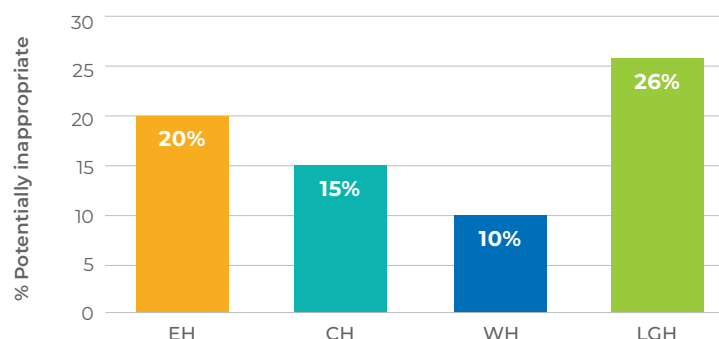


**Figure 1. RUGs Classification in Appropriate and Potentially Inappropriate Admissions to a LTCF in NL**

**Table 2. RUGs Scores and Rates of Continence in Potentially Inappropriate Admissions by RHA**

	EH	CH	WH	LGH
<b>% Potentially Inappropriate</b>	20	15	10	26
<b>Number</b>	116/557	30/198	19/181	18/68
<b>RUGs</b>				
RUGs 1-3 %	5	0	0	0
RUG 4 %	47	37	26	27
RUGs 5-6 %	29	23	32	45
RUG 7 %	18	40	42	28
<b>Not Incontinent</b>				
Bowel	82	60	84	72
Bladder	72	40	68	67

- Of potentially inappropriate admissions to a LTCF, the primary reasons varied by Regional Health Authority (RHA): 52% of Eastern Health (EH) admissions had high RUGs (level 1-4) compared to 26-37% in the other RHAs; 40% of Central Health (CH), and 42% of Western Health (WH) admissions had physical dysfunction as the primary reason compared to 18% in EH and 28% in Labrador Grenfell Health (LGH); and 45% of LGH admissions were for behaviour problems.
- The majority of admissions in all four RHAs did not have either bowel or bladder incontinence.



**Figure 2. Per Cent of Admissions that were Potentially Inappropriate to a LTCF by RHA**

- The highest rate of potentially inappropriate admissions occurred in LGH and the lowest in WH.

## B. Prevalent Cohort of Residents in LTCFs

- 84% (N=2,135) of current residents of LTCFs fulfilled criteria for appropriate admission and 16% did not.

**Table 3. Demographic and Clinical Characteristics of Appropriate (N=2,135) and Potentially Inappropriate (N=342) Stays in Residents of LTCFs in the Fourth Quarter of 2019/20**

		Appropriate %	Potentially Inappropriate %
<b>Gender</b>	Female	66	66
<b>Age</b>	<65 years	8	7
	65-84 years	52	48
	≥85 years	40	46
<b>RUG Score</b>	RUGs 1-3	12	3
	RUG 4	21	25
	RUGs 5-6	18	35
	RUG 7	49	38
	<b>CHES health instability</b>	7	11
<b>Continence</b>	Bowel	17	72
	Bladder	14	64
<b>Drugs</b>	Antipsychotic	29	27
	Anti-depressant	54	52
	Anti-anxiety	27	21
	Hypnotic	22	18
	Diuretic	26	35
<b>Restraints</b>	Limb	3	1
	Trunk	3	1

- Not surprisingly, the differences observed comparing appropriate to potentially inappropriate admissions in the incident cohort were confirmed in the prevalent cohort.
- The distribution of RUGs scores in the prevalent cohort who were appropriate admissions was substantially different from the comparable incident cohort: 28% of the incident cohort were admitted because of physical dysfunction, whereas in the prevalent cohort this proportion was 49%, as those with the highest resource use died sooner.

## Conclusions

1. 18% of new admissions to LTCFs do not have extensive dependence for ADLs or severe cognitive impairment. These potentially inappropriate admissions are not people in high resource use groups, nor those with high degree of frailty as manifest by bowel or bladder incontinence.
2. 30% of potentially inappropriate admissions are attributed to cognitive impairment or behaviour problems, despite not having severe cognitive impairment. This was particularly the case in LGH.