The DIVERT Scale

A pre-emptive tool for emergency avoidance strategies and enhanced services for home care clients. Reliable identification of clients most at risk for future emergency room visits.

DIVERT-CARE Brief User Guide
COVID-19 Pandemic Version
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Content

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DIVERT CARE

Home Care and COVID-19

The COVID-19 Pandemic is a serious health threat that is evolving daily. Currently, with social and physical isolation efforts, home care patients with cardio-respiratory chronic diseases require concentrated measures to remain at home.

There is an increased risk of more severe outcomes for Canadians who are:

- Aged 65 years or older

- With compromised immune systems

- With underlying medical conditions [1]

Why Home Care?

- Home care patients, especially long-stay patients, are a prevalent group of Canadian seniors that are at high risk of emergency department use. **Approximately 8% of all seniors (65+) in Ontario and 33% of seniors over the age of 85 are long-stay community home care patients in any given year.**

- **Home care patients have approximately double the ED utilization rate of nursing home residents and other older adults in the community.** About 40% of Ontario long-stay, home care patients have a hospital admission or ambulatory emergency department visit within six months of being assessed by a Care Coordinator.

- These clients are **medically complex, access care across settings, have very high emergency department utilization rates, and have relatively poor access to effective chronic disease management.** Their frequent emergency department use is not aligned with chronic disease management or geriatric care principles.

[1] Government of Canada. Coronavirus disease (COVID-19): being prepared. (2020). http://www.https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/being-prepared.html

DIVERT Scale for Targeting

The DIVERT Scale (APPENDIX A) is a validated decision support system that identifies a patient's likelihood of **future unplanned ED use**[2]. The DIVERT Scale provides a visual and empirical representation of ED risk among home care patients. Many of the risk pathways in the DIVERT Scale describe 'ambulatory care sensitive conditions" - those that are generally agreed to be preventable by interventions in community-based primary care.

The DIVERT Scale identifies home care patients at risk for unplanned ED use, and enables health care agencies to provide targeted resource allocation.

Use the DIVERT scale to target ED avoidance strategies and provide support in the home care setting.

The interRAI-HC is completed on new and existing long-stay home care patients.

The DIVERT Scale is automatically generated through the interRAI-HC.

Identify home care patients' risk of future ED visits.

The DIVERT Scale ranges from 1 (lowest risk) to 6 (highest risk) for future ED visits. Each risk score is breaks down into clinically distinct subgroups, totalling 19 DIVERT Scale subgroups.

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[2] Costa, Andrew P., et al. "Derivation and Validation of Detection of indicators and Vulnerabilities for Emergency Room Trips Scale for Classifying the Risk of Emergency Department Use in Frail Community-Dwelling Older Adults." Journal of the American Geriatrics Society 63.4 (2015): 763-769.

DIVERT-CARE for Cardio-Respiratory Symptoms

1. Symptom detection and reinforcing appropriate self-management actions for better symptom control to reduce anxiety and confusion, including when to connect with primary care.

2. Keep the vulnerable home care patient connected during times of "social isolation."

DIVERT-SCALE Target Groups

Home Care

Upon interRAI-HC completion, those with **DIVERT Scale** scores with **cardio-respiratory symptoms (6, 5, 4, 3).** The Clinical Subgroups with cardiorespiratory symptoms are identified numerically in the chart below.

DIVERT Score and Subgroup		ED or Hospital Visits	Cardiorespiratory Symptoms (any one) *Chest pain Dyspnea Dizziness Irregular heart rate*	Cardiac Symptoms (must have one) *Heart Failure Coronary Artery Disease (CAD)*	Any Diagnosis of (must have one) *COPD Renal Failure UTI Pneumonia*
6	18	2	Yes	No	
5	15	1	Yes	Yes	
4	14		Yes	No	
4	10	0	Yes	Yes	Yes
3	9		Yes	Yes	No

Who to Prioritize

1. Start with the newest assessment - look at DIVERT Scores within the last 90 days

2. Prioritize according to highest DIVERT Score - (6 is the highest)

Alternative Method - All recent assessments with triggered Cardiorespiratory Cap then prioritize by DIVERT Score

Implementation

Once the target groups have been identified, use the DIVERT-CARE Model telephone assessment and Zones education.

The DIVERT-CARE Model builds on existing resources and has been successfully deployed in the HNHB LHIN (Haldimand Norfolk and Niagara regions).[3]

Who can deploy on the front line:

- Health professionals
- Nurses / Nurse Practitioners (NP) - human resource existing (no orientation required)
- Telemonitoring - resources existing
- Physicians (Primary Care & Geriatricians)
- Paramedicine

Schedule

- Call all identified clients ASAP
- Call weekly/biweekly, scale to corresponding needs

This schedule can be scaled and modified to phone/virtual visits

Supporting Resources

- Phone Assessment Guide
- Zones for Heart Failure and COPD

HEART FAILURE ZONES

- Weigh yourself in the morning before breakfast and write it on your weight log
- Avoid Processed Foods. Don't add salt to your diet. Daily Salt/Sodium Intake – 2000mg
- Limit your fluid intake - 6 to 8 cups Daily (This includes water, juice, tea, coffee, milk, soup)

Which HEART FAILURE ZONE are you in today?

GREEN ZONE — ALL CLEAR – THIS ZONE IS YOUR GOAL
- My weight has not changed
- I can do my daily activities as usual
- I have no new swelling of my feet, ankles, legs or stomach

YELLOW ZONE — CAUTION: THIS ZONE IS A WARNING
Call my doctor if:
- I have gained or lost 2 pounds (1kg) in one day
- I have gained or lost 5 pounds (2 to 3kg) in one week
- I feel more short of breath than usual
- I feel short of breath when I lie flat or wake up short of breath
- I feel tired and weak

RED ZONE — EMERGENCY
CALL 911 if I feel:
- I'm struggling to breathe or can't catch my breath
- My heart is "racing"
- I can't think clearly or feel confused
- I feel dizzy or lightheaded
- I have sudden chest pain that won't go away

[3] Schumacher C; Lackey C; Haughton D; Peirce T; Boscart V M; Davey M; Harkness K; Heckman, G; Junek, M; McKelvie, R; Mitchell, L; Sinha, S K; Costa A P. A chronic disease management model for home care patients with cardio-respiratory symptoms: the DIVERT-CARE Model. 2018. Canadian Cardiovascular Nursing Journal. 28(3), 18-26.

Appendix A - DIVERT Scale
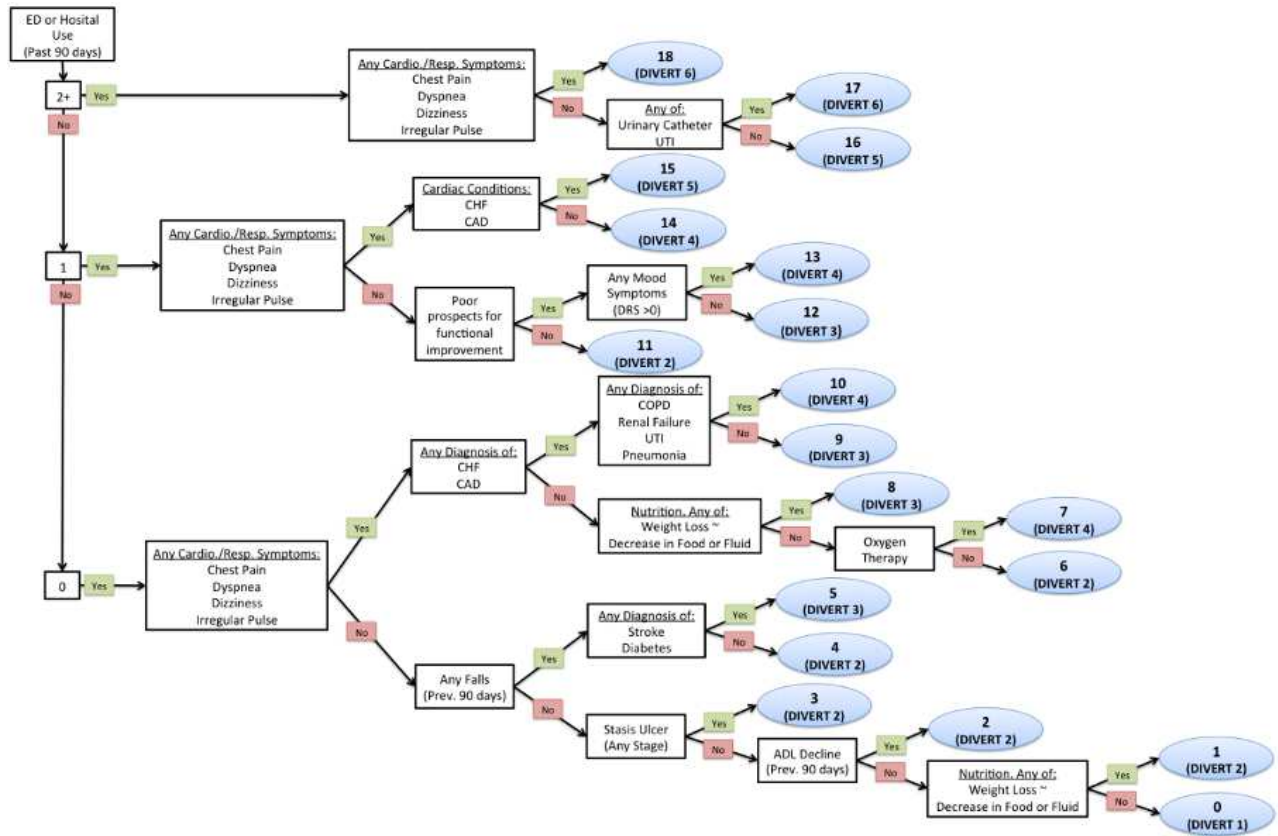
DIVERT Detection of Indicators and Vulnerabilities for Emergency Room Trips	**What:** identifies likelihood of future unplanned emergency department (ED) visits. Scored from 1 (lowest risk) to 6 (highest risk). **Where: Home care** (RAI-HC, interRAI-HC) and **Community Support Services** (interRAI CHA)				**Targeting for Emergency Avoidance Strategies** Consider transitional care interventions for risk groups 3 to 6 AND prior ED visit. Consider chronic disease management programs for risk groups 3 to 6 AND cardiorespiratory problems (DIVERT-CARE). Consider Comprehensive Geriatric Assessment for risk groups 4 to 6.
	Score	**% of population**	**% with ED visits at 1 month**	**% with ED visits at 6 months**	
	1	23.8	7	29.4	
	2	28.3	10	36.2	
	3	18.3	14	43.0	
	4	16.5	17	49.3	
	5	8.7	24	57.6	
	6	4.4	33	67.2	

References: **1) Costa et al.** Derivation and Validation of the Detection of Indicators and Vulnerabilities for Emergency Room Trips Scale for Classifying the Risk of Emergency Department Use in Frail Community-Dwelling Older Adults. Journal of the American Geriatrics Society. 2015; 63: 763-769. **2) Costa et al.** DIVERT-Collaboration Action Research and Evaluation (CARE) Trial Protocol: a multiprovincial pragmatic cluster randomised trial of cardiorespiratory management in home care. BMJ Open. 2019: 15; 9(12):e030301. **3) Schumacher et al.** A Chronic Disease Management Intervention for Cardio-Respiratory Symptoms: The DIVERT-CARE Intervention. CJCN. 2018:28(3):18-26.

Additional DIVERT information. https://acutenet.com/divert-scale/

DIVERT CARE