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Development of the PriCARE classification for potentially preventable ambulance emergency department visits

Submission date
12/09/2020

Recruitment status
No longer recruiting

Registration date
17/09/2020

Overall study status
Completed

Last Edited
25/01/2023

Condition category
Other

[X] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background
Ontario's emergency departments (EDs) have increasingly become burdened with demand for emergency services exceeding most EDs ability to provide quality and timely care. Despite advancements in administrative, political, health policy, access to primary care, and public awareness initiatives, EDs have continued to remain overutilized with increases to the time of initial physician assessment, care received, discharge, and overall wait time for patients. Additionally, EDs have become congested by patients with non-emergency complaints, when alternative care for their conditions may be more appropriate, would strengthen patient relationships with primary care physicians and are more cost-effective.

Ambulance transport diversion from ED destinations to sub-acute centres does not exist in Ontario, Canada for patients with non-emergency conditions who call for emergency services (911). Conceptually this model of care could improve several healthcare domains such as hospital use, patient navigation, quality of care, or ambulance use. Use of urgent care centres and other sub-acute healthcare units have been shown to decrease the proportion of low acuity (non-emergency) ED cases and provides similar services to EDs but in a limited capacity.

Currently, there is not a gold standard to classify non-emergency patients whose ED visits could be potentially preventable for transport to sub-acute centres. Therefore, an original classification is required to increase the understanding of categorizing ambulance transported patients and to inform future clinical decisions, based on in-hospital outcomes and interventions received. This study aims to develop such a classification.

Who can participate?
Ontario physicians who practice in an emergency department and/or primary care centres.

What does the study involve?
This study will use a RAND/UCLA modified Delphi methodology to survey and assess the consensus of a technical expert committee, composed of Ontario physicians, through a two-phase development and evaluation model. Phase one will determine which ED interventions

could be conducted in primary care sub-acute centre destinations and phase two will evaluate the criterion for inclusion in a PriCARE classification that is appropriate as a primary care-like visit and could yield the highest specificity of a same-day discharge ED visit, with no hospital admission or mortality.

What are the possible benefits and risks of participating?
The results of this study will add a new classification to the scientific literature for categorizing patients who are transported to the ED and receive primary care-like visits. This classification will potentially support further research into new models of preventative care as well as ambulance diversion to sub-acute centres. In addition, this study will provide patient-level evidence to inform prospective research to validate the PriCARE classification

No known risks to experts are anticipated as a result of participating in this study. The technical expert committee will be asked to rank secondary data interventions and variations of a classification in a two-phase RAND/UCLA modified Delphi study design. The investigators do not anticipate this being difficult to rate as the experts are practicing physicians.

Where is the study run from?
McMaster University (Canada)

The participating experts of the technical expert committee will be contributing through online means only (questionnaires, video debriefing).

When is the study starting and for how long?
From May 2020 to August 2021

Who is funding the study?
Big Data and Geriatric Models of Care, McMaster University (Canada)

Who is the main contact?
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Contact information

Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number
Nil known

IRAS number

ClinicalTrials.gov number
Nil known

Secondary identifying numbers
Nil known

Study information

Scientific Title
Development of the PriCARE classification for potentially preventable ambulance emergency department visits: a RAND/UCLA modified Delphi study protocol

Acronym
PriCARE

Study objectives
A new paramedic-relevant classification for potentially preventable ED visits is valid and reliable and can be used to support new models of preventative care as well as ambulance diversion to sub-acute levels of care.

Ethics approval required
Old ethics approval format

Ethics approval(s)

Granted a waiver exemption 29/07/2020, Hamilton Integrated Research Ethics Board (HiREB; 293 Wellington Street, Suite 102, Hamilton ON, L8L 8E7; +1 905 521 2100; trimks@mcmaster.ca), ref: 2020-11451

Study design
Two-phase RAND/UCLA modified Delphi study design

Primary study design
Other

Secondary study design

Study setting(s)
Internet/virtual

Study type(s)
Prevention

Participant information sheet
Not available in web format, please use contact details to request a participant information sheet.

Health condition(s) or problem(s) studied
Canadian Classification of Health Interventions conducted in Ontario emergency departments, as reported in the National Ambulatory Care Reporting System database on patients with non-emergent acuities.

Interventions
This study will use a RAND/UCLA modified Delphi methodology to assess the consensus of a technical expert committee through a two-phase development and evaluation model. Phase one will determine which Emergency Department (ED) interventions could be conducted in primary care sub-acute centre destinations and phase two will evaluate the criterion for inclusion in a PriCARE classification that is appropriate as a primary care-like visit and could yield the highest specificity of a same-day discharge ED visit, with no hospital admission or mortality.

Intervention Type
Other

Primary outcome measure
1. The consensus of the technical expert committee of ED interventions in phase one
2. The consensus of the technical expert committee of a PriCARE classification in phase two

Secondary outcome measures
1. Analysis of the PriCARE classification that achieves concordance amongst the technical expert committee, analyzed in the National Ambulatory Care Reporting System ED database from years 2014-2018 for associations of patient-level characteristics with a PriCARE classification, in phase two

Overall study start date
01/05/2020

Completion date
01/08/2021

Eligibility

Key inclusion criteria
1. Experienced physicians with extensive knowledge in emergency medicine or primary care
2. Active healthcare physician who, at the time of the study, is involved in the care of patients in an emergency department and/or primary care centre

Participant type(s)
Health professional

Age group
Adult

Sex
Both

Target number of participants
14-18

Total final enrolment
21

Key exclusion criteria
1. Non-physician clinicians
2. Physicians not practicing in an emergency or primary care context
3. Physicians not practicing in Canada.

Date of first enrolment
15/10/2020

Date of final enrolment
15/11/2020

Locations

Countries of recruitment
Canada

Study participating centre
McMaster University
1280 Main Street West
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Sponsor information

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Sponsor type
University/education

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ROR
https://ror.org/02fa3aq29

Funder(s)

Funder type
University/education

Funder Name
McMaster University

Alternative Name(s)
McMaster, Mac, McMaster Univ., McMaster-Carr

Funding Body Type
Government organisation

Funding Body Subtype
Universities (academic only)

Location
Canada

Results and Publications

Publication and dissemination plan
The study results will be published in a scientific peer-reviewed journal and presented at various conferences.

Intention to publish date
01/10/2021

Individual participant data (IPD) sharing plan
The data collected from the technical expert committee will be analyzed and published as aggregate results; no individual scores will be reported. Each expert participant will be assigned a unique identification (ID) number, and all data will be stored under this ID. No participant level data will be shared with anyone outside of the participant themselves, and all other data from this study will be presented as aggregate. No personal information or patient level data is to be transferred within the study. All participants of this study will have their anonymity maintained by the researchers. All documents will be stored securely and are only assessable by the investigators.

IPD sharing plan summary
Other

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol article	protocol	20/01/2021	22/01/2021	Yes	No
Results article		11/01/2022	28/10/2022	Yes	No
Results article	expert consensus on patient-level characteristics	24/01/2023	25/01/2023	Yes	No