Bringing Care Home: Pandemic Lessons on Delivering Effective and Complex Home-Based Care

Dr. Elizabeth Niedra & Dr. Christa Sinclair-Mills

November 5th, 2021

Sinai Health/UHN Toronto Geriatrics Update Course

Conflicts of Interest

Elizabeth Niedra - None to declare.

Christa Sinclair Mills - None to declare.

Photos kindly provided by Dr. Mark Nowaczynski.

HouseCalls

Interdisciplinary healthcare for homebound seniors

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Who We Are - A Caveat

Home-based primary care for frail adults in downtown Toronto

Average caseload 400-500 patients (600-800 annualized)

Interprofessional longitudinal care:

- 2 administrators
- 7 physicians
- 2 nurse practitioners
- 2 social workers
- 3 occupational therapists
- 1 physiotherapist

Home Visits – Your Thoughts

First words that come to mind?

Home Visits – Your Thoughts

First words that come to mind?

Challenges?

Home Visits – Your Thoughts

First words that come to mind?

Challenges?

Rewards?

Home Visits – Your Thoughts

What are your questions and cases?

Learning Objectives

Understand the unique vulnerabilities of the homebound population, as highlighted by the pandemic crisis

Appreciate home visits as a cornerstone care modality for this at-risk population

Apply the nuances and benefits of a virtualized approach to care for homebound older adults

Explore strategies for safe provision of care of the elderly at home, during the pandemic and beyond

Who is the homebound patient?

In 20 years, 25% of the Canadian population will be aged >65

100% of Canadians would prefer to age in place (NHA, 2020)

In 2016, 6.4% of Canadian households accessed formal homecare

Canadians are more likely to receive homecare if:

- Lower education (secondary or less)
- On social assistance
- Living in rented rather than owned home

Compared to the overall elderly population, homebound patients have:

- Higher rates of metabolic, cardiovascular, cerebrovascular, and musculoskeletal diseases
- Higher chronic medication use
- Higher incidence of cognitive impairment, depression and dementia
- Higher ED use, and twice the rate of annual hospitalizations

Homecare in the COVID Era

The pandemic has put an interrogative floodlight on elder care in Canada

15,207 LTC patients have died in Canada from COVID19 (NIA, 2021); 60% of all COVID deaths

Even so, there remains a critical shortage of LTC beds with wait times on the order of years

Evidence on the Canadian experience is limited, but global data suggests homebound patients experienced: (Liu et al, Federman et al)

- Increased challenges accessing medical care and formal caregiver supports
- Increased difficulty managing IADLs
- Increased food and medication insecurity

Homecare can prevent LTC admissions

1 in 9 long-term care residents newly admitted to LTC could have been cared for at home (NIH, 2020)

Factors driving admission included:

- Difficulty navigating health systems
- Financial barriers, including finances required for at-home care and to access medical appointments
- Responsiveness of care at home
- Access to special services, including culturally safe non-clinical support

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Homecare can be a radical solution to our elder care crisis – but only with meaningful funding, and more providers doing the work

The CAPABLE study

By Sarah L. Szanton, Bruce Leff, Jennifer L. Wolff, Laken Roberts, and Laura N. Gitlin

DOI: 10.1377/hlthaff.2016.0140
HEALTH AFFAIRS 35,
NO. 9 (2016): 1558–1563

AGING & HEALTH

Home-Based Care Program Reduces Disability And Promotes Aging In Place

Sarah L. Szanton (sszanto1@jhu.edu) is an associate professor of nursing and of health policy and management at Johns Hopkins University, in Baltimore, Maryland.

Bruce Leff is an associate professor of medicine and nursing at Johns Hopkins University.

ABSTRACT **The Community Aging in Place, Advancing Better Living for Elders (CAPABLE) program, funded by the Center for Medicare and Medicaid Innovation, aims to reduce the impact of disability among low-income older adults by addressing individual capacities and the home environment. The program, described in this innovation profile, uses an interprofessional team (an occupational therapist, a registered nurse, and a handyman) to help participants achieve goals they set. For example, it**

Homecare is *cost effective*

For a frail older person…

At-home care: $103 per day

Long-term care: $201 per day

Awaiting permanent placement in hospital: $703 daily

(NIHA, 2020)

GOALS OF HOME BASED PRIMARY CARE

- Provide access to ongoing primary medical care
- Avoid preventable ED visits and hospital admissions
- Optimize function and quality of life
- Allow aging and end of life care in place
- Advance care planning and end of life care

Comprehensive homecare means:

IADL support (ex. groceries, finances, health navigation)

ADL support

Access to routine medical care, with expert focus on maintenance of geriatric health & safety

Access to urgent care, to prevent avoidable ED visits

Comprehensive homecare means:

IADL support (ex. groceries, finances, health navigation)

Social work
LHIN case management

ADL support

Access to routine medical care, with expert focus on maintenance of geriatric health & safety

Access to urgent care, to prevent avoidable ED visits

Comprehensive homecare means:

IADL support (ex. groceries, finances, health navigation)

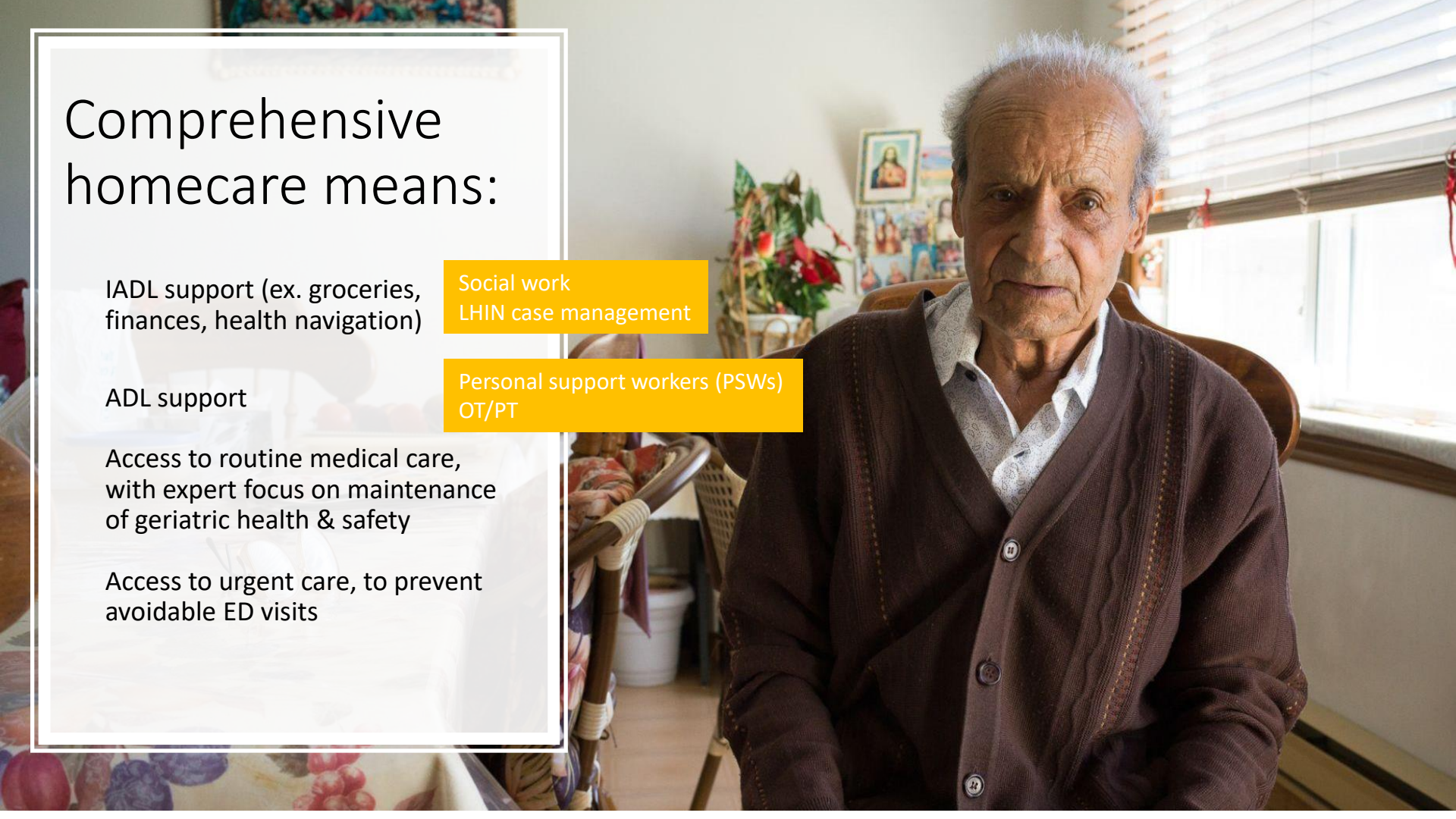
Social work
LHIN case management

ADL support

Personal support workers (PSWs)
OT/PT

Access to routine medical care, with expert focus on maintenance of geriatric health & safety

Access to urgent care, to prevent avoidable ED visits



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Medical care providers
LHIN nursing
Mobile labs & imaging

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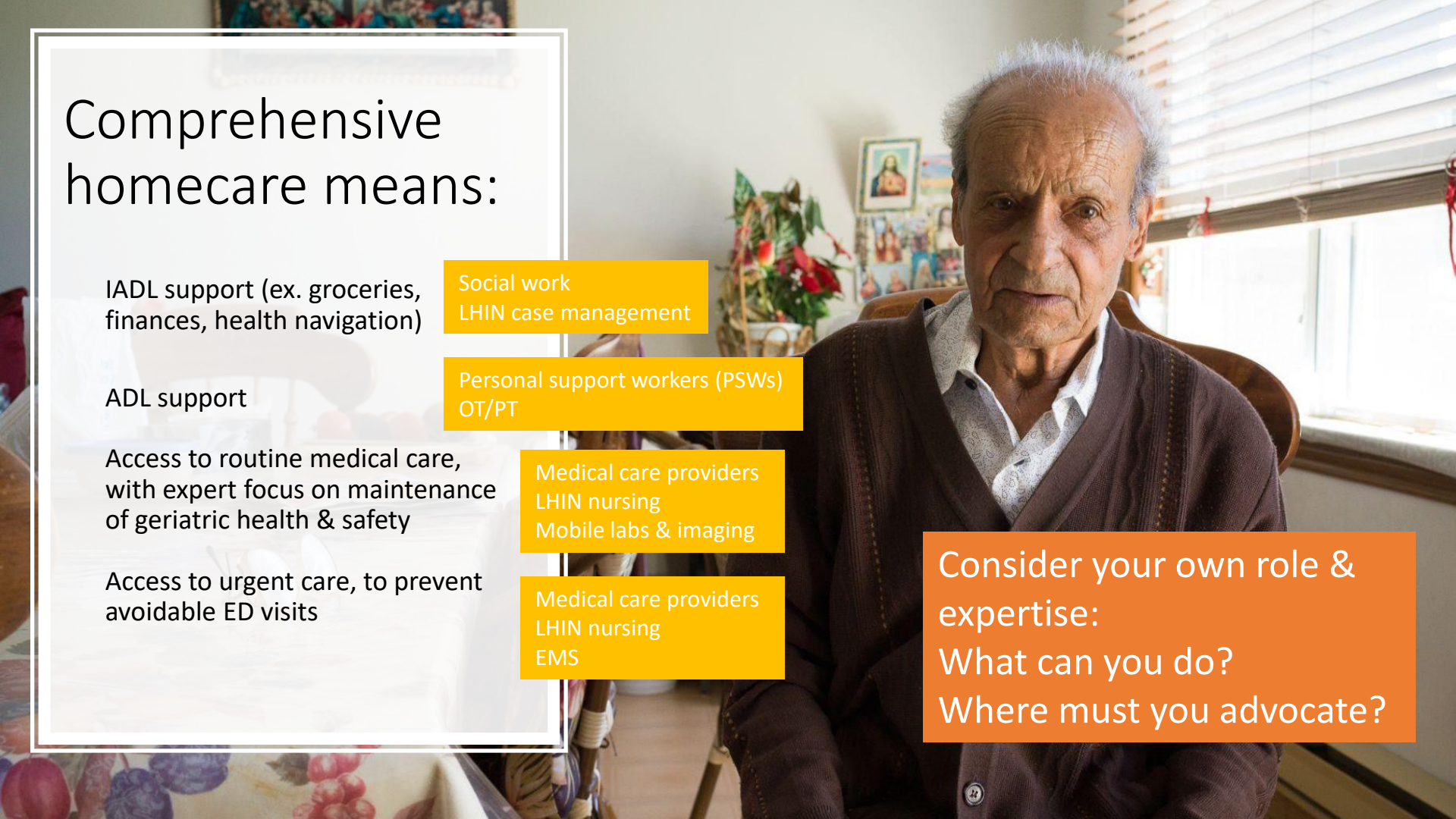


Consider your own role & expertise:
What can you do?
Where must you advocate?

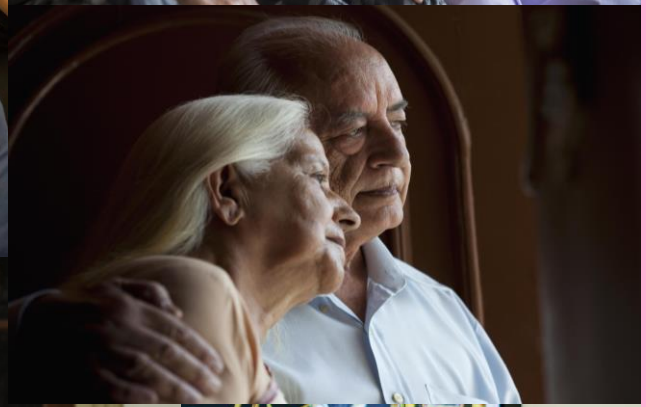
Access to Urgent Care

Geriatric emergencies can be rapidly evolving, and decline can be precipitous

Urgent care responsiveness may be key to avoiding ED visits

Our current study: preventable ED visits after encounters within 24-28 hours

How to make this work in your practice?

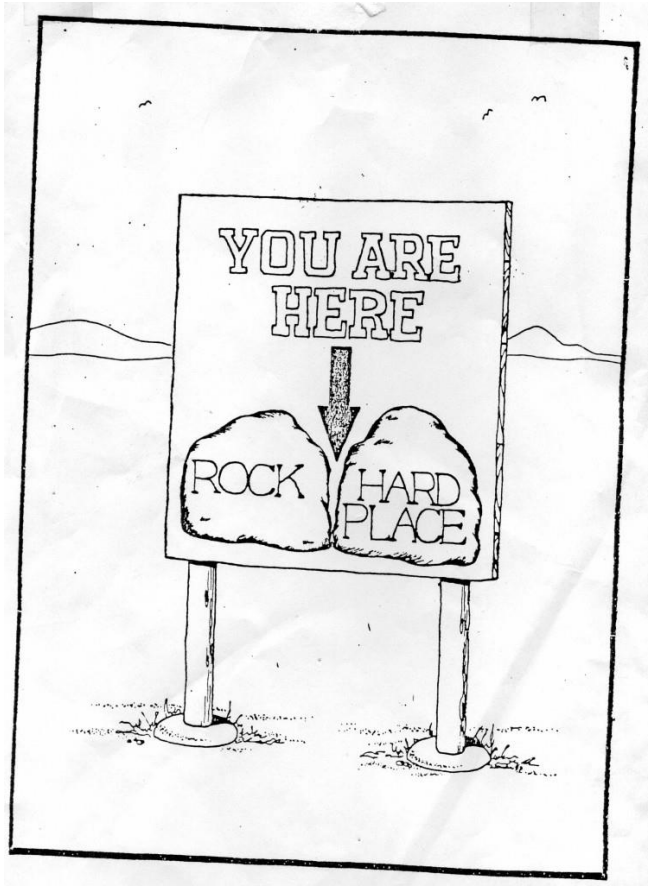


Who provides homecare?

Community care laborers, both paid & unpaid

Primary care MDs & NPs

Geriatricians & other specialists



Our Pandemic Challenge

- Prevent the spread of COVID19 among our high-risk patients and staff
- Maintain safe and patient-centred care for this uniquely vulnerable and isolated population

CPSO Statement on Virtual Care Oct 2021

There are limits to what can be done virtually and the standard of care is often difficult to meet in a virtual care environment. While physicians are ultimately responsible for determining the appropriateness of providing virtual care in the circumstances presented, it is important to remember that the standard of care must always be met. **In-person care is essential for certain conditions and services** or where physical assessments are necessary to make an appropriate diagnosis or treatment decision.

There are many patients for whom the standard of care cannot be met in a solely virtual care environment.

(CPSO, Oct 2021)

The Ideal Virtual Care Encounter

Provider

Adequate technological resources and literacy

Logistical flexibility

Comfort providing virtual advice

Patient

Reliable historian or caregiver informant available

Technological resources eg. access to internet/telephone, smart device

Intact sensorium and motor abilities

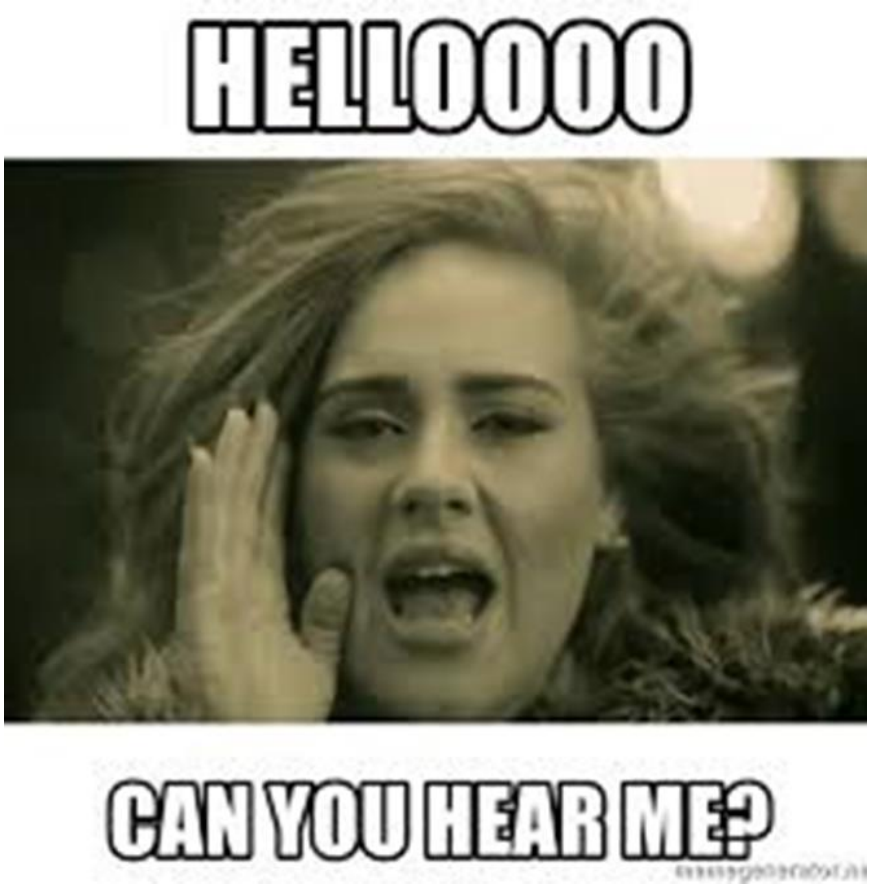
Problem

Not physical exam-dependent

Well-defined symptoms

Absence of confounders and yellow flags

…Often not our patient



Challenges to the Virtual Care of the Elderly

Sensory deficits: Limited hearing, vision, proprioception

Cognitive limitations: MCI/Dementia, Aphasia

Functional motor deficits: Gait issues limiting ability to reach telephone, praxis, fine motor coordination

Social frailty: Limited access to internet or smart devices, limited social supports to assist with virtual care, low education and/or technical literacy

Challenges to the Virtual Care of the Elderly

For the frailest patient, virtual care does not overcome vulnerabilities

Rather, it serves to accentuate them.

Our Approach

- Virtual care where *possible*
- In-person care when *essential*
- Creative adaptations to keep our patients & staff safe

The “Enhanced” Virtual Visit:

Telephone or more rarely, video interview

Enlist a support person or collateral historian where possible

Increased frequency of follow-up phone contact

Make use of home care supports!

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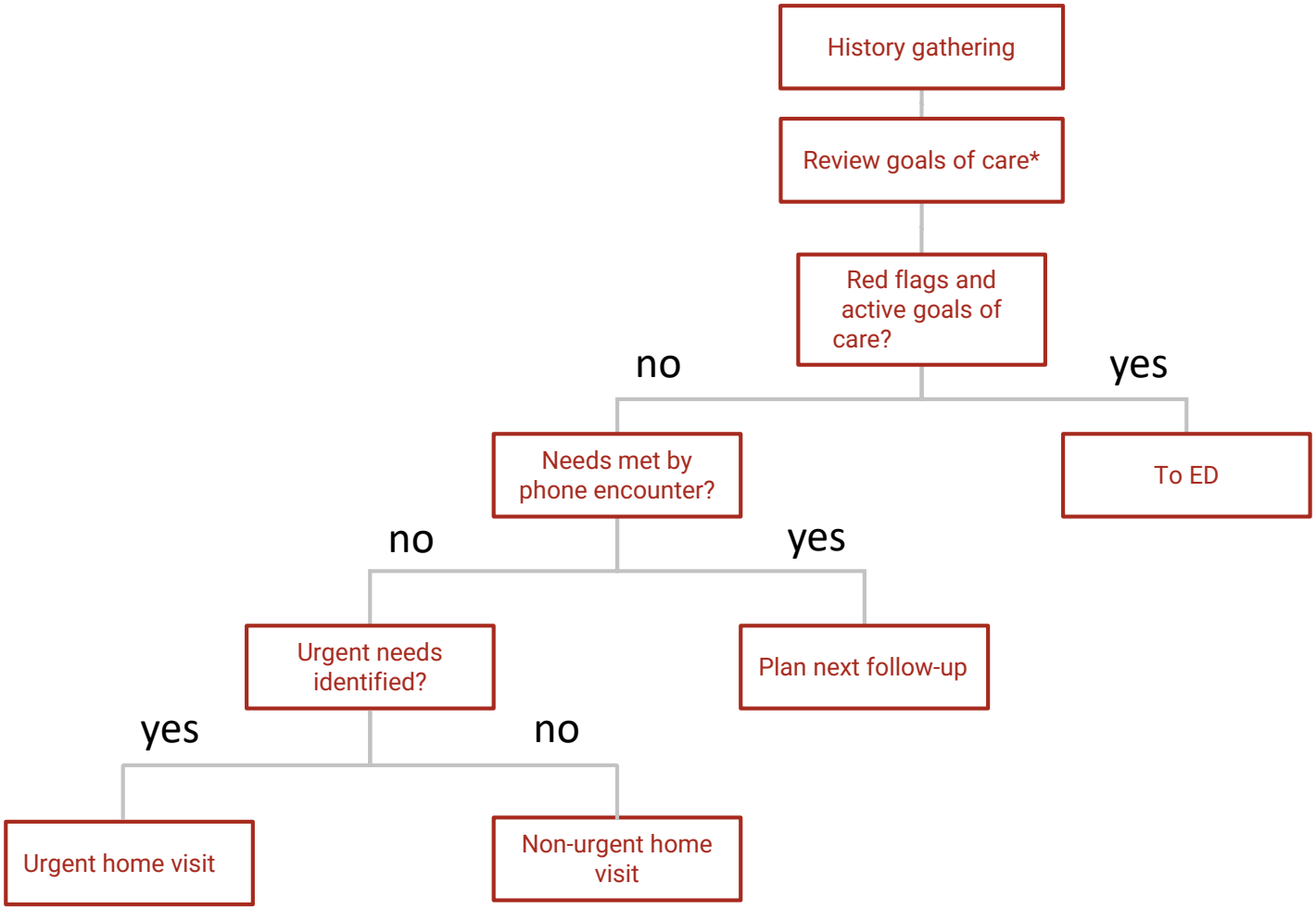
History gathering
Review goals of care*
Red flags and active goals of care?
no
yes
Needs met by phone encounter?
To ED
no
yes
Urgent needs identified?
Plan next follow-up
yes
no
Urgent home visit
Non-urgent home visit

The How-To of In-Home Care: Case-Based Learning

4:45PM

Caregiver for patient Mrs. M:

“She has been breathing badly for a day or two, can the doctor please call”

The How-To of In-Home Care: Case-Based Learning

96yoF

PMHx: hypothyroid, moderately advanced dementia with BPSD, venous stasis, HTN, dyslipidemia

Medications: levothyroxine, quetiapine QHS + PRN, acetaminophen TID, candesartan, atorvastatin

SHx: Lives alone with a private live-in caregiver. Goals of care are no transfer to hospital, DNR.

The How-To of In-Home Care: Case-Based Learning

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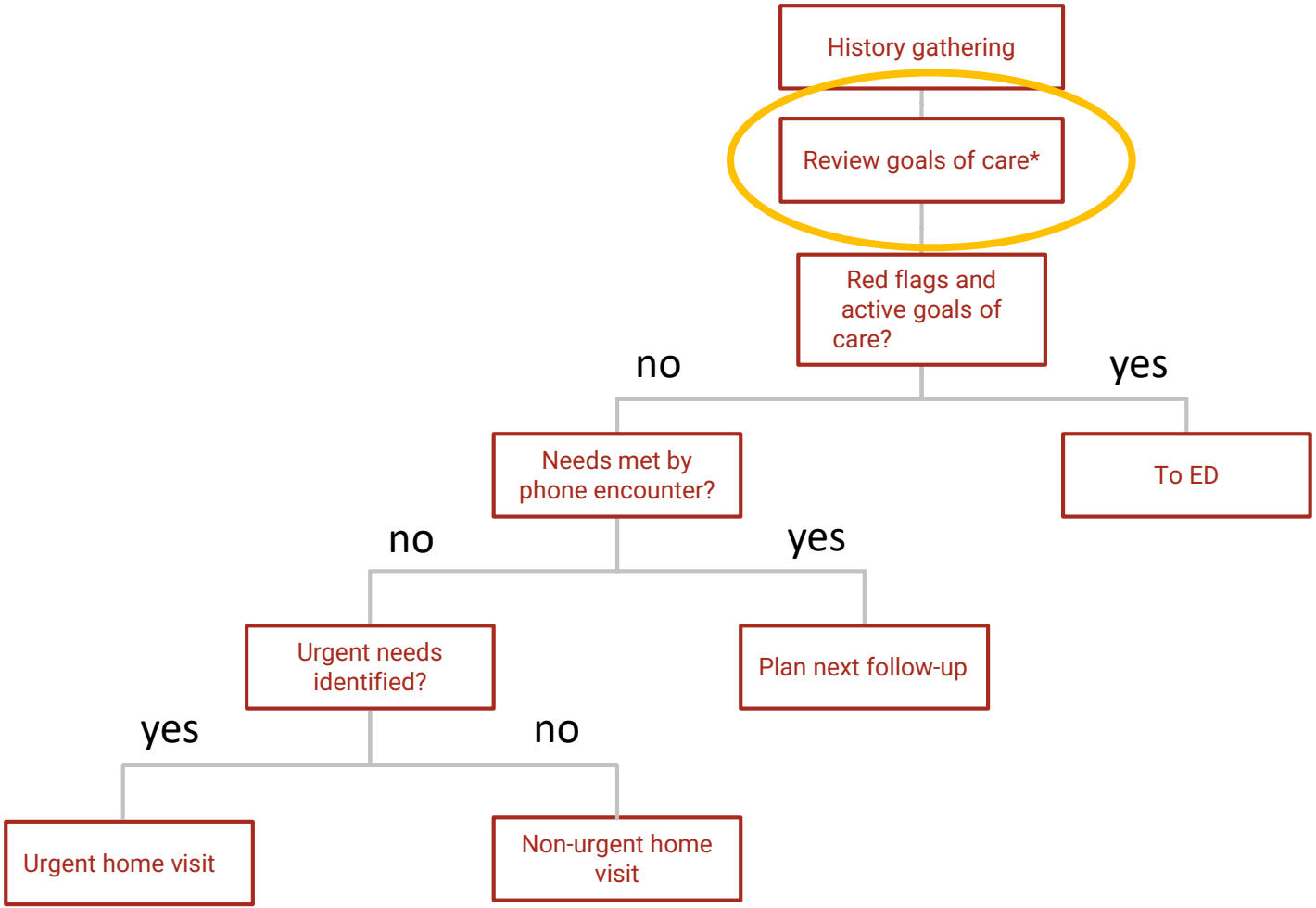
Red flag symptoms identified - call to daughter to review, goals of care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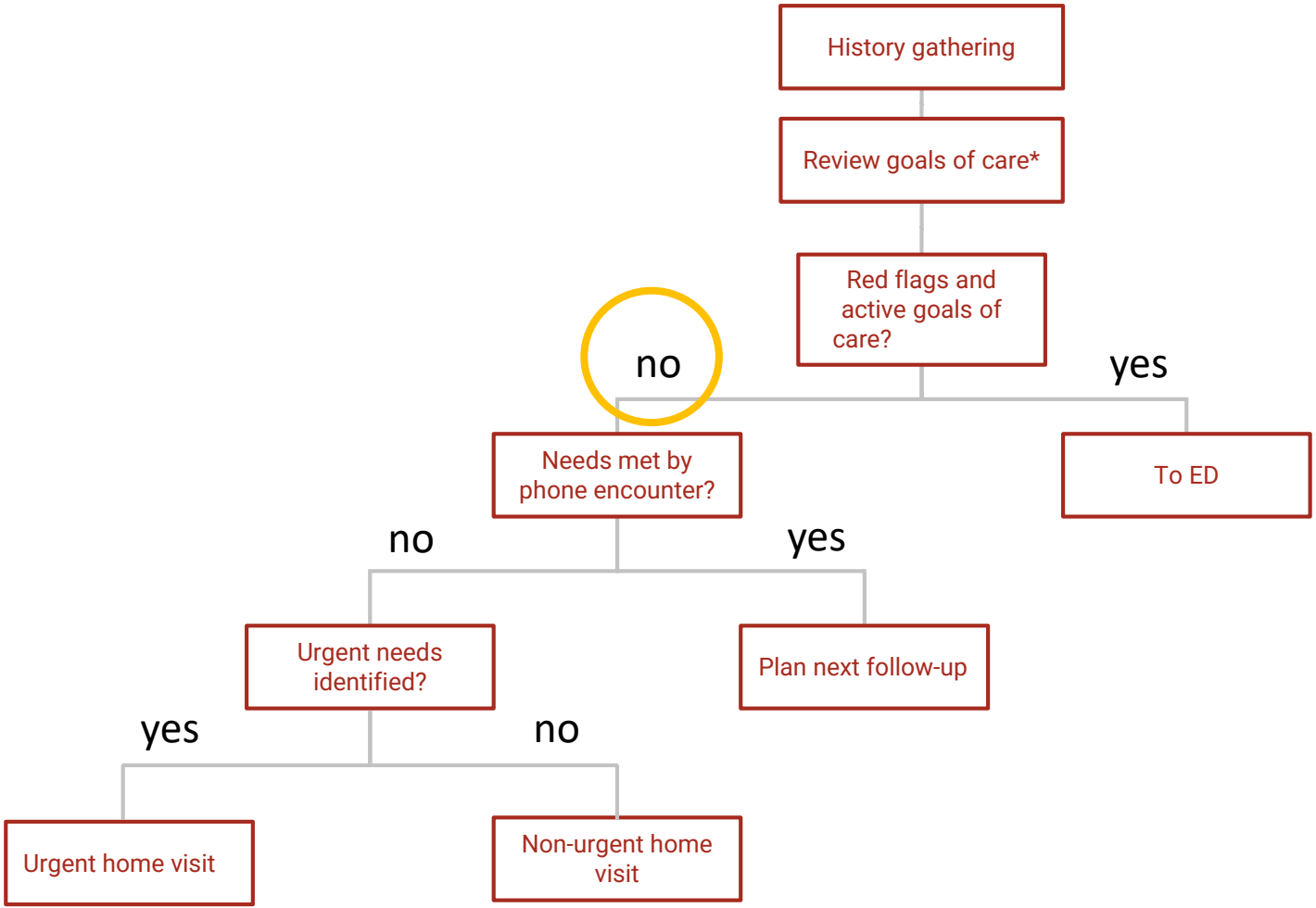
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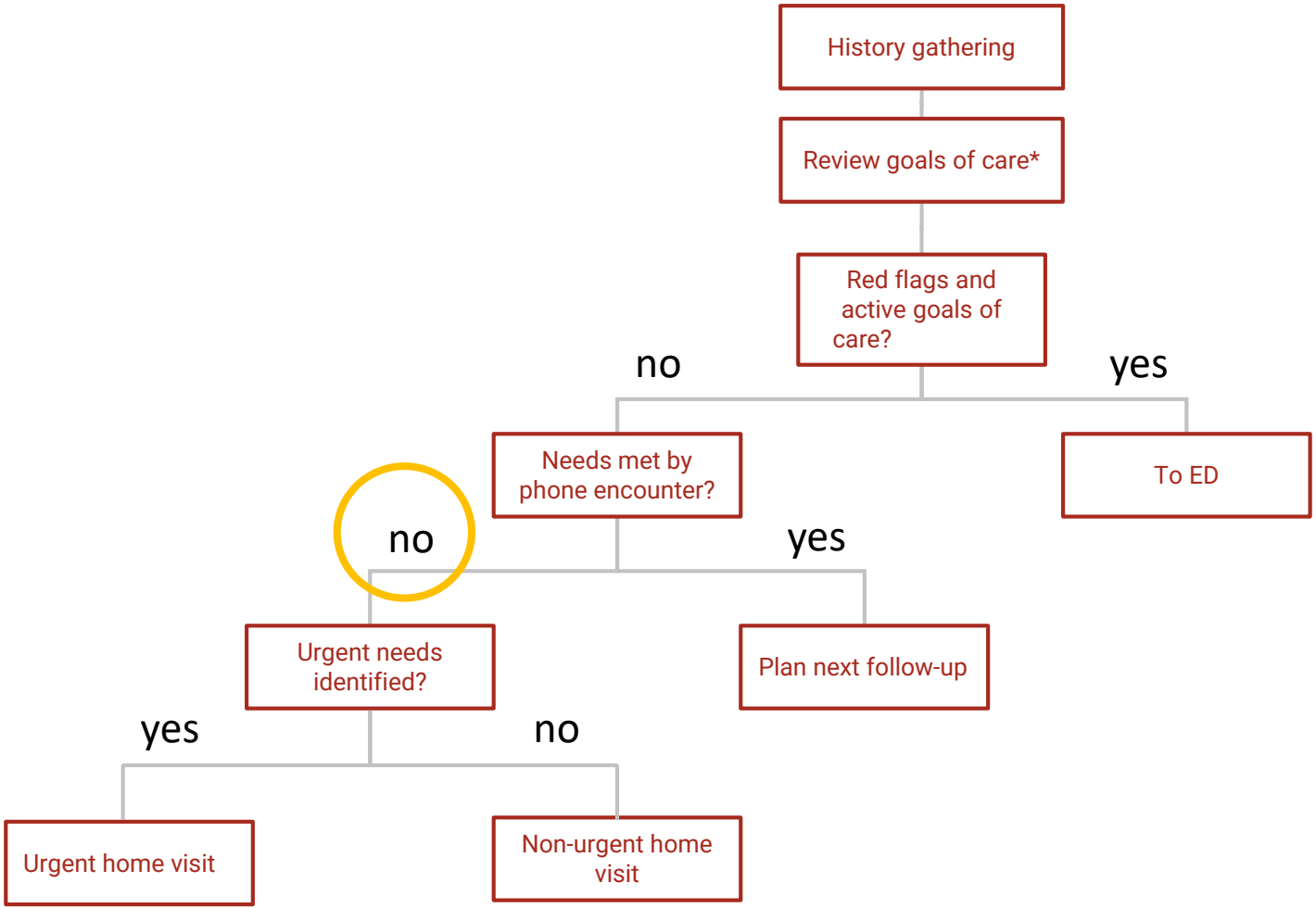
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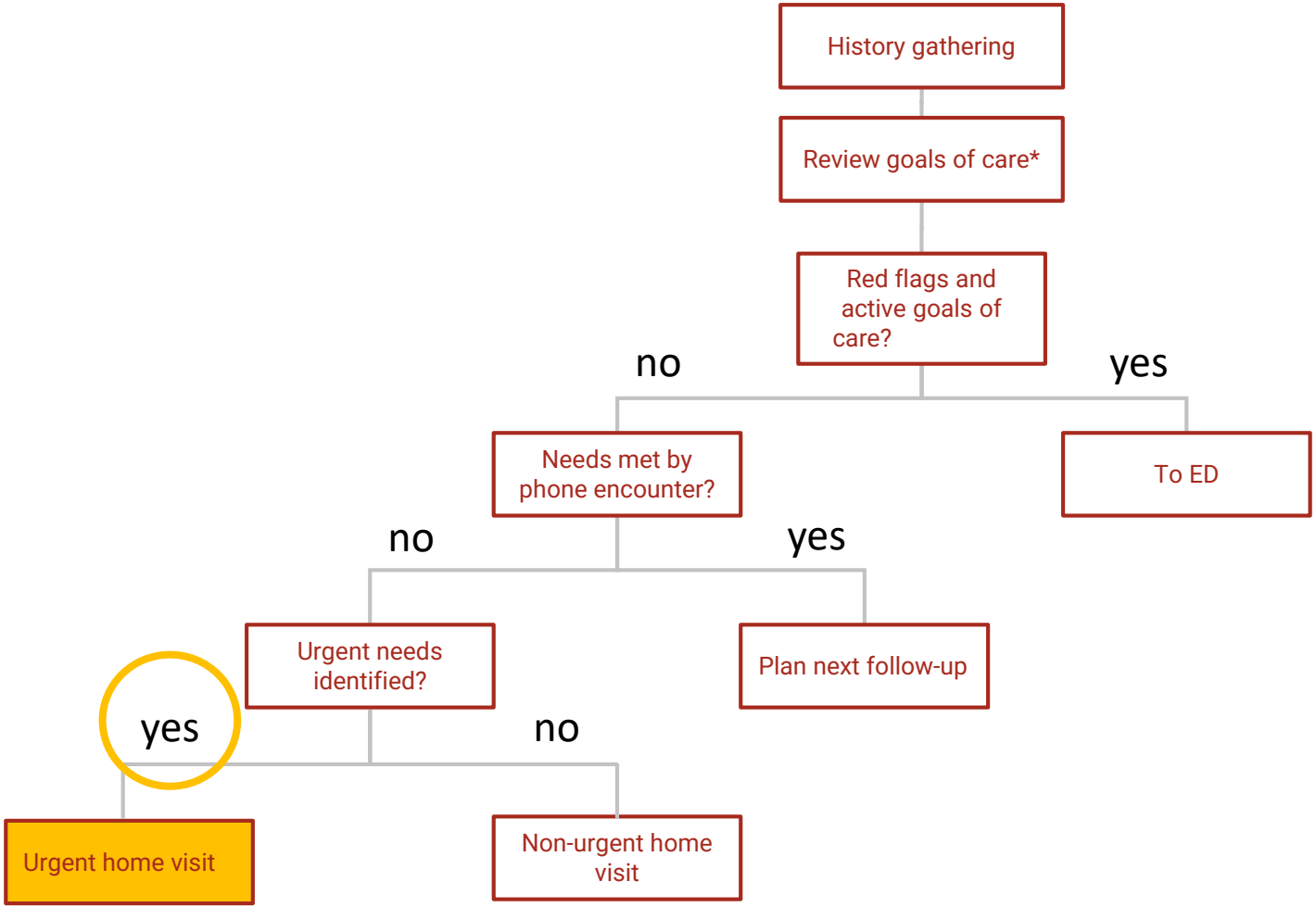
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The How-To of In-Home Care: Case-Based Learning

Visit offered within 1 hour.

In-person ROS:
- Two days of increasing dyspnea, wet cough
- Fatigue; breathless with pivot transfer to commode, usually able to manage stairs with 2-person assist
- Preceding 1-2 days of malodorous urine, urinary frequency
- Possible vague complaint of chest pain

Initial bedside assessment: HR 142, BP 96/58, RR 30, afebrile, SpO2 94% RA
- Decreased LOC, mild rest dyspnea, diaphoresis.
- 2+ pedal edema to knees
- Markedly elevated JVP
- HR rapid, rhythm is irregularly irregular

The Ideal Virtual Care Encounter

Provider	Patient	Problem
Adequate technological resources and literacy	Reliable historian or caregiver informant available	**Not physical exam-dependent**
Logistical flexibility	Technological resources eg. access to internet/telephone, smart device	**Well-defined symptoms**
Comfort providing virtual advice	**Intact sensorium and motor abilities**	**Absence of confounders and yellow flags**

The Ideal Virtual Care Encounter

Adequate technological

Comfort providing virtual advice

Reliable historian or caregiver

access to internet/telephone, smart device

Intact sensorium and motor abilities

Not physical exam-dependent

yellow flags

To provide adequate clinical care *and* avoid unnecessary ED visits, urgent home-based care is a critical service

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What is your tentative diagnosis?

The How-To of In-Home Care: Case-Based Learning

Clinical diagnosis:

Urinary tract infection → new rapid AFib → pulmonary edema/CHF

The How-To of In-Home Care: Case-Based Learning

Clinical diagnosis:

Urinary tract infection → new rapid AFib → pulmonary edema/CHF

What are your options and next steps?

The How-To of In-Home Care: Case-Based Learning

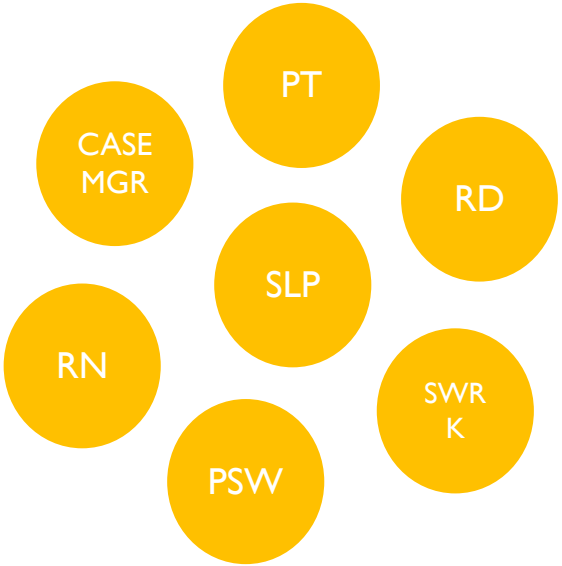
Urinary tract infection → new rapid AFib → pulmonary edema/CHF

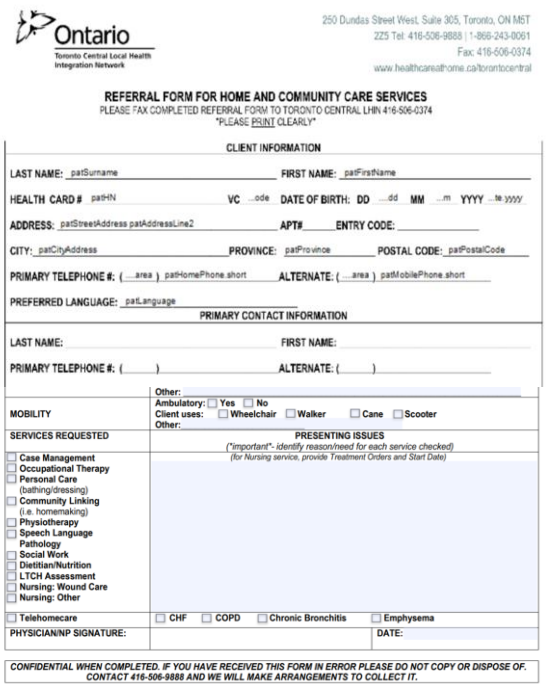
Goals of care revisited: “Please do everything you can at home; but I don’t want her to go to hospital”

Our approach:
Risk-informed medical management within the limitations of the home setting


CASE MGR
OT
US
SWR K
XR
PT
PSW
OT N
LAB
RN
SLP
RD

THE LHIN REFERRAL MOTHERSHIP





Ontario
Toronto Central Local Health Integration Network

250 Dundas Street West, Suite 305, Toronto, ON M5T 2Z5 Tel: 416-506-9888 | 1-866-243-0061 Fax: 416-506-0374 www.healthcareathome.ca/torontocentral

REFERRAL FORM FOR HOME AND COMMUNITY CARE SERVICES

PLEASE FAX COMPLETED REFERRAL FORM TO TORONTO CENTRAL LHIN 416-506-0374
"PLEASE PRINT CLEARLY"

CLIENT INFORMATION

LAST NAME: patSurname FIRST NAME: patFirstName

HEALTH CARD # patHN VC ...ode DATE OF BIRTH: DD ...dd MM ...m YYYY ...te.yyyy

ADDRESS: patStreetAddress patAddressLine2 APT# ENTRY CODE:

CITY: patCityAddress PROVINCE: patProvince POSTAL CODE: patPostalCode

PRIMARY TELEPHONE #: (...area) patHomePhone.short ALTERNATE: (...area) patMobilePhone.short

PREFERRED LANGUAGE: patLanguage

PRIMARY CONTACT INFORMATION

LAST NAME: FIRST NAME:

PRIMARY TELEPHONE #: ( ) ALTERNATE: ( )

Other:

MOBILITY

Ambulatory: ☐ Yes ☐ No
Client uses: ☐ Wheelchair ☐ Walker ☐ Cane ☐ Scooter
Other:

SERVICES REQUESTED

PRESENTING ISSUES
("important"- identify reason/need for each service checked)
(for Nursing service, provide Treatment Orders and Start Date)

- ☐ Case Management
- ☐ Occupational Therapy
- ☐ Personal Care (bathing/dressing)
- ☐ Community Linking (i.e. homemaking)
- ☐ Physiotherapy
- ☐ Speech Language Pathology
- ☐ Social Work
- ☐ Dietitian/Nutrition
- ☐ LTCH Assessment
- ☐ Nursing: Wound Care
- ☐ Nursing: Other

☐ Telehomecare ☐ CHF ☐ COPD ☐ Chronic Bronchitis ☐ Emphysema

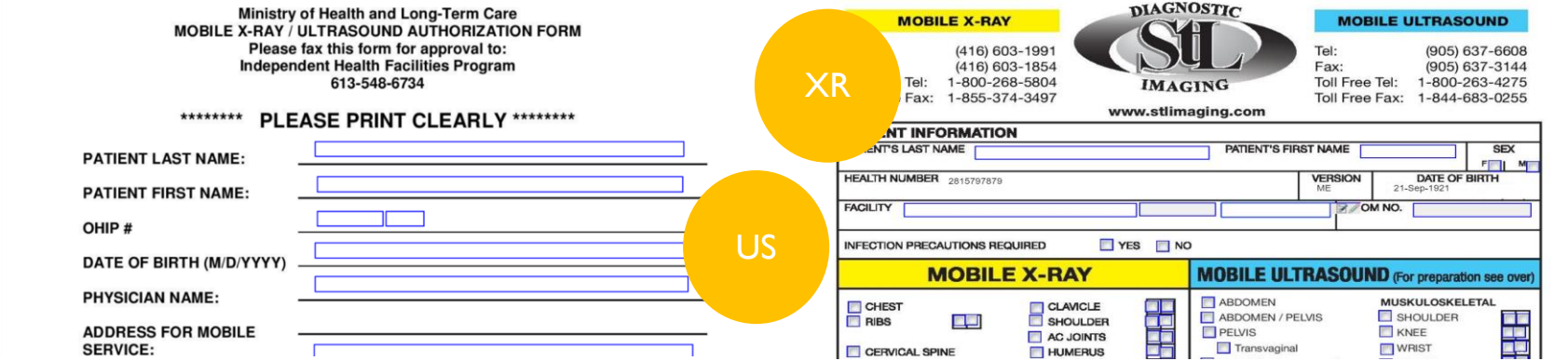
PHYSICIAN/NP SIGNATURE: DATE:

CONFIDENTIAL WHEN COMPLETED. IF YOU HAVE RECEIVED THIS FORM IN ERROR PLEASE DO NOT COPY OR DISPOSE OF. CONTACT 416-506-9888 AND WE WILL MAKE ARRANGEMENTS TO COLLECT IT.

HOME LAB SERVICES

LAB

MOBILE US AND X-RAY



Ministry of Health and Long-Term Care
MOBILE X-RAY / ULTRASOUND AUTHORIZATION FORM
Please fax this form for approval to:
Independent Health Facilities Program
613-548-6734

******** PLEASE PRINT CLEARLY ********

PATIENT LAST NAME:
PATIENT FIRST NAME:
OHIP #
DATE OF BIRTH (M/D/YYYY)
PHYSICIAN NAME:
ADDRESS FOR MOBILE SERVICE:

XR

US

MOBILE X-RAY
(416) 603-1991
(416) 603-1854
Tel: 1-800-268-5804
Fax: 1-855-374-3497

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Tel: (905) 637-6608
Fax: (905) 637-3144
Toll Free Tel: 1-800-263-4275
Toll Free Fax: 1-844-683-0255

NT INFORMATION
ENT'S LAST NAME
PATIENT'S FIRST NAME
SEX F M
HEALTH NUMBER 2815797879
VERSION ME
DATE OF BIRTH 21-Sep-1921
FACILITY
OM NO.
INFECTION PRECAUTIONS REQUIRED YES NO

MOBILE X-RAY
CHEST
RIBS
CERVICAL SPINE
CLAVICLE
SHOULDER
AC JOINTS
HUMERUS

MOBILE ULTRASOUND (For preparation see over)
ABDOMEN
ABDOMEN / PELVIS
PELVIS
Transvaginal
MUSKULOSKELETAL
SHOULDER
KNEE
WRIST

A Note on OTN

Make telemedicine work for you!

- OTN e-consults
- Site/community-specific e-consult networks

When to consider outpatient consults:

- Hands-on assessments, ex. Rheumatology for injections, Dermatology for excision/biopsy
- Specialist not available by OTN,

or in-person visit

recommended by e-consult

- Patient preference/

relationship to specialist


I'M PRESCRIBING YOU A NEW MEDICINE.
THE GUINEA PIG JUST EXPLODED.
LET'S STICK WITH THE OLD MEDICINE.

Take-Home Messages

The pandemic has highlighted the need to urgently restructure our elder care system

Homecare is a critical and cost-effective answer to the current need; and supports Canadians to choose to age in place

Know your clinic and community resources, and feel confident to expand your skills to the home setting

Learn the limitations of your site and region – be an advocate for better systems-building!

Thank you!

Contact info:

csinclairmills@vha.ca

eniedra@vha.ca

References

Savage et al. Loneliness among older adults in the community during COVID-19: a cross-sectional survey in Canada. BMJ Open. 2021; 11(4): e044517.

National Institute on Health. The Impact of COVID-19 on Long-Term Care in Canada: the first 6 months: https://www.cihi.ca/sites/default/files/document/impact-covid-19-long-term-care-canada-first-6-months-report-en.pdf

National Institute on Health. 1 in 9 new long-term care residents potentially could have been cared for at home. https://www.cihi.ca/en/1-in-9-new-long-term-care-residents-potentially-could-have-been-cared-for-at-home

Liu J et al. Impact of the COVID-19 pandemic on community services for homebound older adults in New York City. Health and Soc Comm, 2021. https://onlinelibrary.wiley.com/doi/10.1111/hsc.13554

Federman A et al. Disruptions in Care and Support for Homebound Adults in Home-Based Primary Care in New York City During the COVID-19 Pandemic. Home Healthcare Now. 9(4):211-214.https://journals.lww.com/homehealthcarenurseonline/Abstract/2021/07000/Disruptions_in_Care_and_Support_for_Homebound.6.aspx

Province	Community Care Organization	Available services	Maximum PSW hours/ week	Availability of at-home labs	Associated cost for home labs	Availability of at-home imaging	Other resources	Caveats to homecare
Ontario	Local Health Integrated Network (LHIN)	PSW SLP Dietitian PT/OT Case management Nursing	14 (21 if palliative)	Yes, with some limitations	Yes, if not receiving LHIN nursing; cost $30+/visit	XR US Arterial/ venous dopplers ABIs	Private agencies and word-of-mouth caregivers	Variable services depending on location, poor hospital integration
British Columbia	Vancouver Coastal Health	PSW SLP Dietitian PT/OT Case management Nursing	28	Yes	None	Arterial dopplers ABIs PVR scanning	Various private caregiver enterprises	Caregiver supports biased toward ADLs; few IADL supports available
Nova Scotia	Nova Scotia Continuing Care	PSW PT/OT Case Management Nursing Wheelchair/ equipment loans Respite care	Varies by income and palliative status	Yes – new since the pandemic	None	None	The Special Patient Program – community paramedicine	Requires external support – rare support for 24h at home care
Alberta	Alberta Home Living	PSW SLP Dietitian PT/OT Case management Nursing	20	Yes	None	ABIs PVR scanning	Nurse Next Door private nursing	
Saskatchewan	Client Patient Access Services (CPAS)	PSW SLP Dietitian PT/OT Case management Home nursing	21	Yes, in urban areas. In rural areas, may be available via paramedicine	None	Unknown	Private homecare services, varying by region	

Ontario Ministry of Health and Long-Term Care

Office of the Fire Marshal

Serial Number _____

Do Not Resuscitate Confirmation Form

To Direct the Practice of Paramedics and Firefighters after February 1, 2008

Confidential when completed

When this form is signed by a physician (M.D.), registered nurse (R.N.), registered nurse in the extended class (R.N. (EC)) or registered practical nurse (R.P.N.), a paramedic or firefighter **will not** initiate basic or advanced cardiopulmonary resuscitation (CPR) (see point #1) and **will** provide necessary comfort measures (see point #2) to the patient named below:

Patient's name – *please print clearly*	
Surname	Given Name

1. **"Do Not Resuscitate"** means that the paramedic (according to scope of practice) or firefighter (according to skill level) **will not** initiate basic or advanced cardiopulmonary resuscitation (CPR) such as:
   - Chest compression;
   - Defibrillation;
   - Artificial ventilation;
   - Insertion of an oropharyngeal or nasopharyngeal airway;
   - Endotracheal intubation;
   - Transcutaneous pacing;
   - Advanced resuscitation drugs such as, but not limited to, vasopressors, antiarrhythmic agents and opioid antagonists.
2. For the purposes of providing comfort (palliative) care, the paramedic (according to scope of practice) or firefighter (according to skill level) **will** provide interventions or therapies considered necessary to provide comfort or alleviate pain. These include but are not limited to the provision of oropharyngeal suctioning, oxygen, nitroglycerin, salbutamol, glucagon, epinephrine for anaphylaxis, morphine (or other opioid analgesic), ASA or benzodiazepines.