



Choosing Wisely in LTC

Elliot Lass, MD, MSc, CCFP (COE) - Assistant Professor, University of Toronto

Andrea Moser, MD, MSc, CCFP(COE), FCFP - Associate Professor, University of Toronto

Sid Feldman, MD, CCFP (COE), FCFP – Associate Professor, University of Toronto

Ontario Long Term Care Clinicians. Practical Pearls in LTC

October 22, 2023

Faculty/Presenter Disclosure

- **Faculty:** Elliot Lass
- **Relationships with financial sponsors:**
 - **Any direct financial relationships including receipt of honoraria:** None
 - **Memberships on advisory boards or speakers' bureau:**
 - **Choosing Wisely Canada Family Medicine Advisory Committee** – Unpaid
 - **Advisor for Choosing Wisely Canada LTC Steering Committee** – Unpaid
 - **Patents for drugs or devices:** None
 - **Other: financial relationships/investments:** None

Disclosure of Financial Support

- **This program has received no financial or in-kind support from any organization**
- **Potential for conflict(s) of interest:**
 - **None**

Mitigating Potential Bias

- N/A

Faculty/Presenter Disclosure

- **Faculty:** Andrea Moser
- **Relationships with financial sponsors:**
 - **Any direct financial relationships including receipt of honoraria:**
 - Honoraria – OLTCC for Curriculum Development and Teaching
 - **Memberships on advisory boards or speakers' bureau:**
 - Choosing Wisely Canada LTC Steering Committee- Unpaid
 - **Patents for drugs or devices:** None
 - **Other: financial relationships:** Chief Medical Officer, Sienna Senior Living, Oct 2020-Jan 2022

Disclosure of Financial Support

- **This program has received no financial or in-kind support from any organization**
- **Potential for conflict(s) of interest:**
 - **None**

Mitigating Potential Bias

- N/A

Faculty/Presenter Disclosure

- **Faculty:** Sid Feldman
- **Relationships with financial sponsors:**
 - **Any direct financial relationships including receipt of honoraria:** McMaster University (re Ontario Osteoporosis Strategy), OCFP
 - **Memberships on advisory boards or speakers' bureau:**
 - Choosing Wisely Canada LTC Steering Committee- (Unpaid)
 - Osteoporosis Canada Scientific Advisory Council (unpaid)
 - **Patents for drugs or devices:** None
 - **Other: financial relationships/investments: salary support:** Baycrest Health Sciences, Baycrest Global solutions, Temerty Faculty of Medicine, U of T

Disclosure of Financial Support

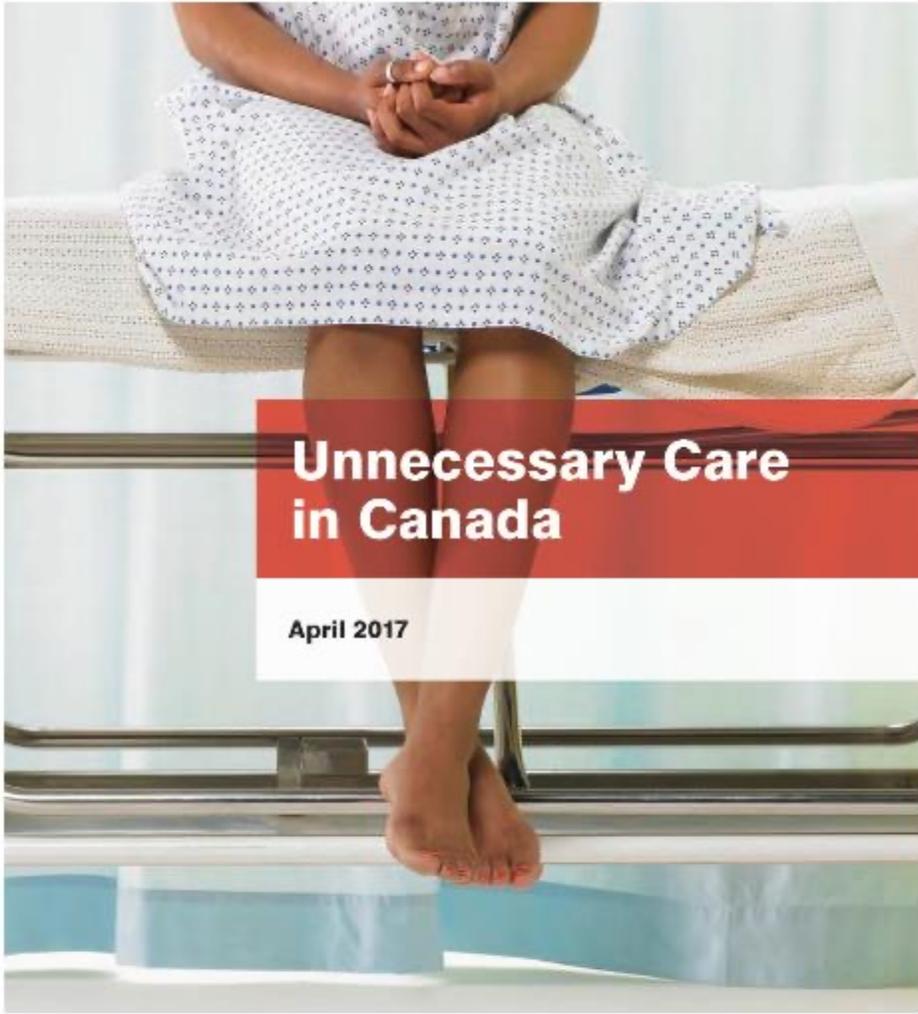
- **This program has received no financial or in-kind support from any organization**
- **Potential for conflict(s) of interest:**
 - **None**

Mitigating Potential Bias

- N/A

Objectives

1. Describe Choosing Wisely Canada recommendations for LTC residents
2. Examine approaches to avoid unnecessary hospital transfers and encourage goals of care conversations in LTC
3. Recognize approaches to avoiding potentially harmful medications for LTC residents



Unnecessary Care in Canada

April 2017



The report found that up to 30% of the tests, treatments and procedures associated with the 8 selected CWC recommendations are potentially unnecessary.



An example of unnecessary care



1 in 5 long-term care residents were taking antipsychotics without a diagnosis of psychosis (Newfoundland and Labrador, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia and Yukon).



Daily physical restraints in long-term care occurred in fewer than 1 in 20 residents (Newfoundland and Labrador, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia and Yukon).



1 in 12 older adults used benzodiazepines and other sedative-hypnotics regularly (all provinces except Quebec).



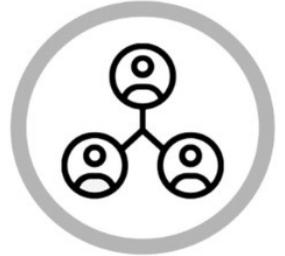
MORE IS
NOT
ALWAYS
BETTER

Choosing Wisely Canada is the national voice for reducing unnecessary tests and treatments in health care.

What is unique about CWC?



Clinician led



Bottom-up approach



Evidence-based



Simple

Choosing Wisely Canada in LTC

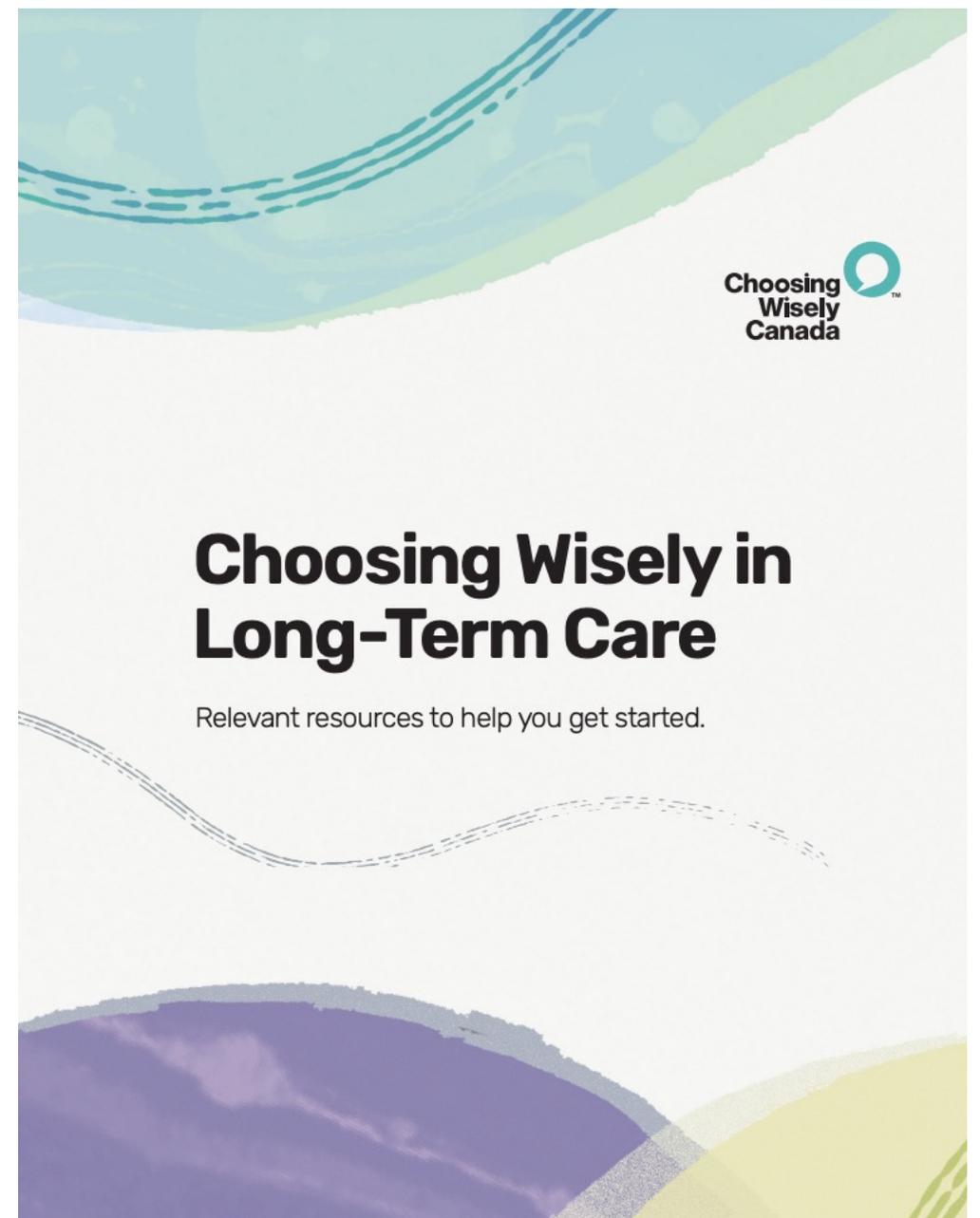
- CIHI has illustrated that long-term care settings are an area of interest for potential improvement
- Patients are more complex, have more comorbidities, and there is more uncertainty with the stewardship of their care
- 54% of patients in long-term care in Canada have dementia, making it difficult to communicate emerging illnesses
- Temptation to overtreat in this setting, to risk avoiding community spread in the home

Barriers to Appropriate Care in LTC

- Limited histories in cognitively impaired patients
- Blunted febrile responses in older patients
- Difficulty distinguishing infection from comorbidity mimickers
 - eg, pneumonia VS congestive heart failure and COPD
 - eg, venous stasis VS cellulitis
 - eg, altered mental status from dementia VS sepsis
- Variability in access to radiology and laboratory testing
- Off-site physicians
 - up to half of antibiotic prescriptions called in by phone

Nicolle *ICHE* 2000; Crnich
Drugs Aging 2015; Katz *Arch*

- Check out the LTC Toolkit here!
<https://choosingwiselycanada.org/toolkit/choosing-wisely-ltc/>





Long-Term Care

Make a change at your long-term care facility
by putting recommendations into practice.

> **Long-Term Care Recommendations**

> **Using Antibiotics Wisely**

> **Serious Illness Conversations**

> **QI Resources**

Long-Term Care Recommendations

Developed by the Canadian Society for Long Term Care
Medicine, these recommendations identify tests and
treatments commonly used and could expose patients to
harm.

View Recommendations



Long-Term Care Recommendations:

www.choosingwiselycanada.org/long-term-care/



CSLTCM

Canadian Society for
Long-Term Care Medicine



CANADIAN
NURSES
ASSOCIATION

Choosing Wisely Canada LTC Recommendations (March 2021) 7 areas of potential over-use

 Hospital transfers – care not available in LTC and aligned with goals of care

 Use of Antipsychotics

 Urine Culture and urine dipstick

 Insertion of feeding tube in advanced dementia

 Continuation of chronic medications if no reasonable long term benefit

 Lab testing

 Use of virtual care

Hospital Transfers

1. Don't send the frail resident of a nursing home to the hospital without reviewing goals of care and advance directives with the resident or substitute decision-maker, unless their urgent comfort and medical needs cannot be met in their care home.

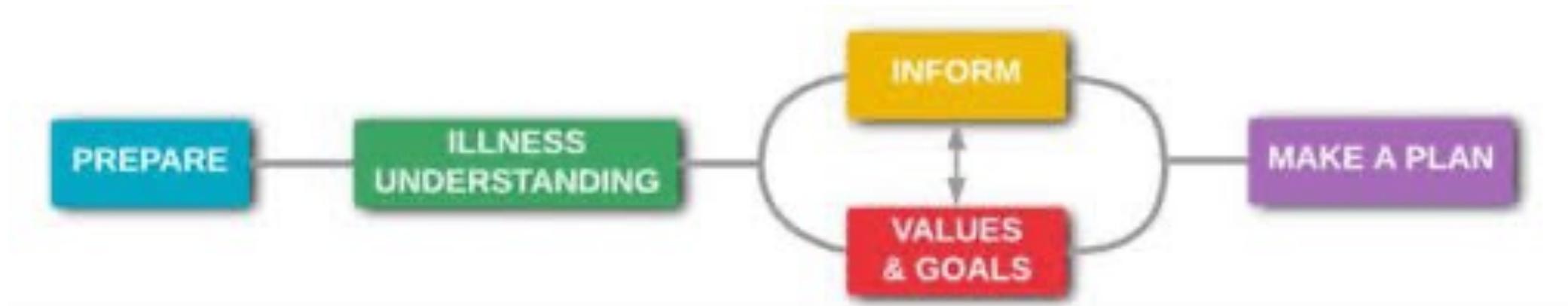


Hospital Transfers

- Transfers to hospital may result in increased morbidity
- Canadian study noted that 47% were considered avoidable
- Transfers are to the ER which are usually unfamiliar and stressful environments
- Have Goals of Care conversations early!
- Hazards of unnecessary hospitalization include:
 - Delirium
 - Hospital acquired infection
 - Medication side effects
 - Sleep disturbances
 - Deconditioning

Hospital Transfers and Goals of Care

- Speak Up Ontario Guidance with Goals of Care LTC Guide



Choosing Wisely Canada - Serious Illness Conversation Guide “Time to Talk”

1. Set up the conversation
2. Assess understanding and preferences
3. Share prognosis
4. Explore Key Topics
5. Close the conversation
6. Document your conversation
7. Communicate with key clinicians



Antipsychotics

2. Don't use antipsychotics as first choice to treat behavioural and psychological symptoms of dementia.

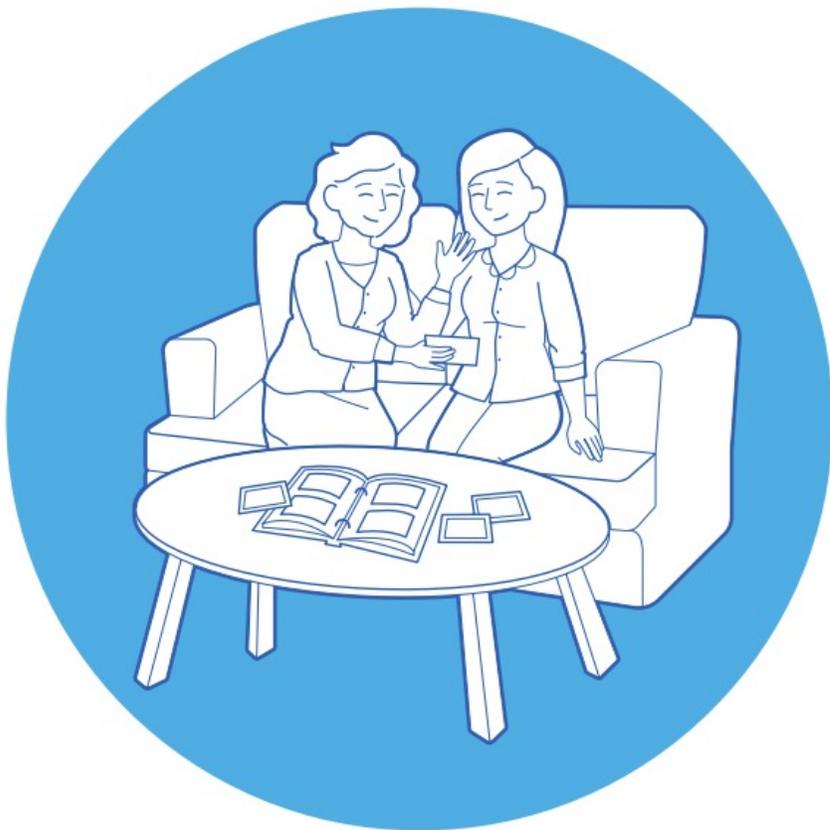


Antipsychotics

- Antipsychotics are commonly prescribed for behavioural symptoms for residents with dementia
- Antipsychotics can cause serious harm, including premature death
- These medications should be limited to cases where non-drug measures have been tried and failed
- Frequently review attempts at reduction or discontinuation to reduce harm

How Antipsychotic Medications are Used to Help People with Dementia

A Guide for Residents, Families, and Caregivers



Use of Antipsychotics in Behavioural and Psychological Symptoms of Dementia (BPSD) Discussion Guide

This tool is designed to help providers understand, assess, and manage residents in LTC homes with behavioural and psychological symptoms of dementia (responsive behaviours), with a focus on antipsychotic medications. It was developed as part of Centre for Effective Practice's Academic Detailing Service for LTC homes. This tool integrates best-practice evidence with clinical experience, and makes reference to relevant existing tools and services wherever possible.

Important principles include:

- Being resident-centred,
- Being mindful of benefits, risks and safety concerns,
- Using an interprofessional team approach and validated tools,
- Prescribing conservatively, and,
- Reassessing regularly for opportunities to deprescribe medications that are no longer needed.

As always, efforts must be made to individualize any treatment decisions for the resident, with consideration given to caregivers, family members, as well as LTC staff.

Identify BPSD Symptom Clusters^{1, 2}

Psychosis	Aggression	Agitation	Depression	Mania	Apathy
Delusions Hallucinations Misidentification	Defensive Resistance to care Verbal	Dressing/undressing Pacing Repetitive actions	Anxious Guilty Hopeless	Euphoria Irritable Pressured speech	Amotivation Lacking interest Withdrawn



When Psychosis isn't the Diagnosis: A Toolkit for Reducing Inappropriate Use of Antipsychotics in Long Term care

Steps to avoid unnecessary antipsychotic use

1. Establish an inter-professional team
2. Agree on appropriateness criteria
 - Severe delusions/hallucinations
 - Behaviours that put others at risk of injury
3. Educate care staff as to reasons for responsive behaviours
 - Environmental
 - Medical/biological
 - Basic physical needs
 - Psychosocial

Steps to avoid unnecessary antipsychotic use

4. Inform and involve family
5. Establish a regular medication review process
6. Taper residents off potentially inappropriate antipsychotic prescriptions
7. Implement supportive strategies

Urinary Tract Infections

3. Don't do a urine dip or urine culture unless there are clear signs and symptoms of a urinary tract infection (UTI).



Antibiotics Wisely in LTC



Reflect before you collect.

Up to 50% of older adults in long-term care have bacteria in their urine but do not have a UTI. Don't rush to urine testing without considering other causes.

Use Antibiotics Wisely.
To learn more, visit: www.choosingwiselycanada.org/antibiotics



Are you using antibiotics wisely?

Up to **50%** of older adults in long-term care (LTC) have bacteria in their urine but do not have a urinary tract infection (UTI). Unnecessary antibiotic use in older adults with asymptomatic bacteriuria can be harmful and lead to serious complications.

Health professionals working in LTC are key partners in the battle against antimicrobial resistance—an emerging public health threat. The below practice change statements will help you optimize your antibiotic prescribing.

The following key practice changes have been identified and are intended to reduce unnecessary antibiotic use for asymptomatic bacteriuria in LTC. They are not a substitute for timely individual clinical assessment and management and do not apply to the acutely unwell resident with suspected sepsis.

PROCESS OF CARE	PRACTICE CHANGE RECOMMENDATIONS
1. NEW ADMISSION/ PERIODIC HEALTH EXAMINATIONS/NEW REFERRALS IN LTC	Don't perform screening urinalysis/urine dipstick and/or urine culture and sensitivity for residents on admission, during periodic health examinations, or prior to new specialist referrals.
2. USE OF URINE DIPSTICK OR URINALYSIS	Don't perform urine dipstick/urinalysis to diagnose a UTI.
3. ASSESSMENT OF RESIDENT WITH CHANGE IN HEALTH STATUS (E.G. CHANGE IN URINE ODOUR OR COLOUR, CHANGE IN BEHAVIOUR, FEVER, ETC.)	Don't assume a UTI is the cause of any change in health status, including behaviours, until alternate explanations are excluded, such as volume depletion, constipation, skin breakdown, medication side effects, and other sources of infection. Don't send a urine culture unless the change noted is accompanied by minimum criteria for a UTI (specific for residents with and without catheters). Do perform a clinical assessment to identify alternate causes for change in health status including examination of the perineal skin. Do complete a comprehensive delirium workup, if clinically indicated, which may include a urine culture (See Practice Change Recommendation #5). Do encourage increased fluid intake if urine is concentrated or malodorous. Do document and reassess.
4. SUBSTITUTE DECISION MAKER/FAMILY REQUEST TO SUBMIT A URINE CULTURE OR TREAT A UTI	Don't collect a urine culture upon request without first seeking to understand and address resident/substitute decision maker/family concerns. Provide a differential diagnosis and a rationale for the investigations that will help identify the etiology of the symptoms.

5. MANAGEMENT OF RESIDENT WITH CLINICAL CRITERIA FOR A UTI

Don't order a urine culture unless **minimum criteria** for a UTI are present.

Don't prescribe antibiotics unless **minimum criteria** for a UTI are present.

Don't treat a UTI for excessive durations.

DURATION OF THERAPY DEPENDS ON UTI SYNDROME	
UTI Syndrome	Duration of Therapy
complicated cystitis	3-5 days depending on antibiotic chosen
complicated cystitis (male resident, catheterized resident, urological abnormalities)	7 days
pyelonephritis	7 days

Don't forget to reassess the need for antimicrobial therapy 3 days of starting antibiotics to check antibiotic sensitivity results and that the resident is improving. Antibiotic therapy should be stopped if result of the urine culture tested before antibiotics is negative.

Don't routinely screen residents from LTC homes with a urinalysis/urine dipstick unless **minimum criteria** for a UTI are present. Look for alternate explanations for change in clinical status. Refer to Practice Change Recommendation #3.

DOEB CRITERIA^{1,2)}

In a catheterized resident:

- Any one of the following after alternate explanations have been excluded:
 - fever (> 37.9°C (100°F) or a 1.5° C (2.4°F) increase above baseline on at least two occasions over the last 12 hours]
 - flank pain
 - shaking chills
 - new onset delirium

Do not use these criteria for surveillance of a resident.

Please visit: www.choosingwiselycanada.org/antibiotics-LTC

For more information, visit www.choosingwiselycanada.org | [@ChooseWiselyCA](https://twitter.com/ChooseWiselyCA) | [f /ChoosingWiselyCanada](https://www.facebook.com/ChoosingWiselyCanada)

Minimum criteria are found in the box on the next page. ➔

Urine Cultures in LTC

- 50% of those tested showing bacteria present in the absence of symptoms
- Premature Diagnostic Closure
 - Over-testing and treating asymptomatic bacteriuria with antibiotics can increase the risk of failure to consider other causes of changes in condition including COVID
- Over-testing and over-treatment can lead to:
 - Diarrhea
 - C. difficile
- Overuse of antibiotics contributes to increasing antibiotic-resistant organisms.

Reflect Before you Collect: Practice Change Recommendations for management of UTI in Long-Term Care

Using Antibiotics Wisely

Many older adults receive antibiotics for urinary tract infections (UTIs) even though they do not have UTI symptoms. Help reduce unnecessary antibiotic prescribing for asymptomatic bacteria with our Using Antibiotics Wisely recommendations, tools, and resources.



Practice Change Recommendations

PROCESS OF CARE

PRACTICE CHANGE RECOMMENDATIONS

1.

**NEW ADMISSION/
PERIODIC HEALTH
EXAMINATIONS/NEW
REFERRALS IN LTC**

Don't perform screening urinalysis/urine dipstick and/or urine culture and sensitivity for residents on admission, during periodic health examinations, or prior to new specialist referrals.

2.

**USE OF URINE DIPSTICK
OR URINALYSIS**

Don't perform urine dipstick/urinalysis to diagnose a UTI.

Practice Change Recommendations

3.

ASSESSMENT OF RESIDENT WITH CHANGE IN HEALTH STATUS (E.G. CHANGE IN URINE ODOUR OR COLOUR, CHANGE IN BEHAVIOUR, FEVER, ETC.)

MINIMUM CRITERIA FOR UTI (MODIFIED LOEB CRITERIA^{1,2})

In a non-catheterized resident:	In a catheterized resident:
<ul style="list-style-type: none">• Acute dysuria <u>or</u> 2 or more of the following:<ul style="list-style-type: none">• fever [$> 37.9^{\circ}\text{C}$ (100°F) or a 1.5°C (2.4°F) increase above baseline on at least two occasions over the last 12 hours]• new or worsening urgency• frequency• suprapubic pain• gross hematuria• flank pain• urinary incontinence	<ul style="list-style-type: none">• Any one of the following after alternate explanations have been excluded:<ul style="list-style-type: none">• fever [$> 37.9^{\circ}\text{C}$ (100°F) or a 1.5°C (2.4°F) increase above baseline on at least two occasions over the last 12 hours]• flank pain• shaking chills• new onset delirium

¹Note that these are clinical criteria validated for diagnosis for a UTI and differ from criteria that are used for surveillance.

²Note that confusion alone is not symptom of UTI in non-catheterized resident.

Practice Change Recommendations

4.

SUBSTITUTE DECISION MAKER/FAMILY REQUEST TO SUBMIT A URINE CULTURE OR TREAT A UTI

Don't collect a urine culture upon request without first seeking to understand and address resident/substitute decision maker/family concerns. Provide a differential diagnosis and a rationale for the investigations that will help identify the etiology of the symptoms.

5.

MANAGEMENT OF RESIDENT WITH CLINICAL CRITERIA FOR A UTI

Don't order a urine culture unless [minimum criteria](#) for a UTI are present.

6.

MANAGEMENT OF RESIDENT WITH POSITIVE URINE CULTURE

Don't prescribe antibiotics unless [minimum criteria](#) for a UTI are met.

Practice Change Recommendations

7.

SELECTING ANTIBIOTIC AND DURATION FOR A RESIDENT WITH CLINICAL CRITERIA FOR A UTI

Don't treat a UTI for excessive durations.

DURATION OF THERAPY DEPENDS ON UTI SYNDROME	
UTI Syndrome	Duration of Therapy
Uncomplicated cystitis	3–5 days depending on antibiotic chosen
Complicated cystitis (male resident, catheterized resident, urological abnormalities)	7 days
Acute pyelonephritis	7 days

Practice Change Recommendations

8.

FOLLOW-UP ASSESSMENT OF RESIDENT WITH CLINICAL CRITERIA FOR A UTI

Don't forget to reassess the need for antimicrobial therapy within 3 days of starting antibiotics to check antibiotic sensitivity results and that the resident is improving. Antibiotic therapy should be stopped if result of the urine culture collected before antibiotics is negative.

9.

RESIDENT TRANSFERRED TO THE EMERGENCY DEPARTMENT

Don't routinely screen residents from LTC homes with a urinalysis/urine dipstick unless [minimum criteria](#) for a UTI are present. Look for alternate explanations for change in clinical status. Refer to Practice Change Recommendation #3.

Resident and Caregiver resource

choosingwiselycanada.org/wp-content/uploads/2017/06/UTIs-EN.pdf

Antibiotics for Urinary Tract Infections in Older People: When you need them - and when you don't



Antibiotics are medicines that can kill bacteria. Health care providers often use antibiotics to treat urinary tract infections (UTIs).

The main symptom of a UTI is a burning feeling when you urinate.

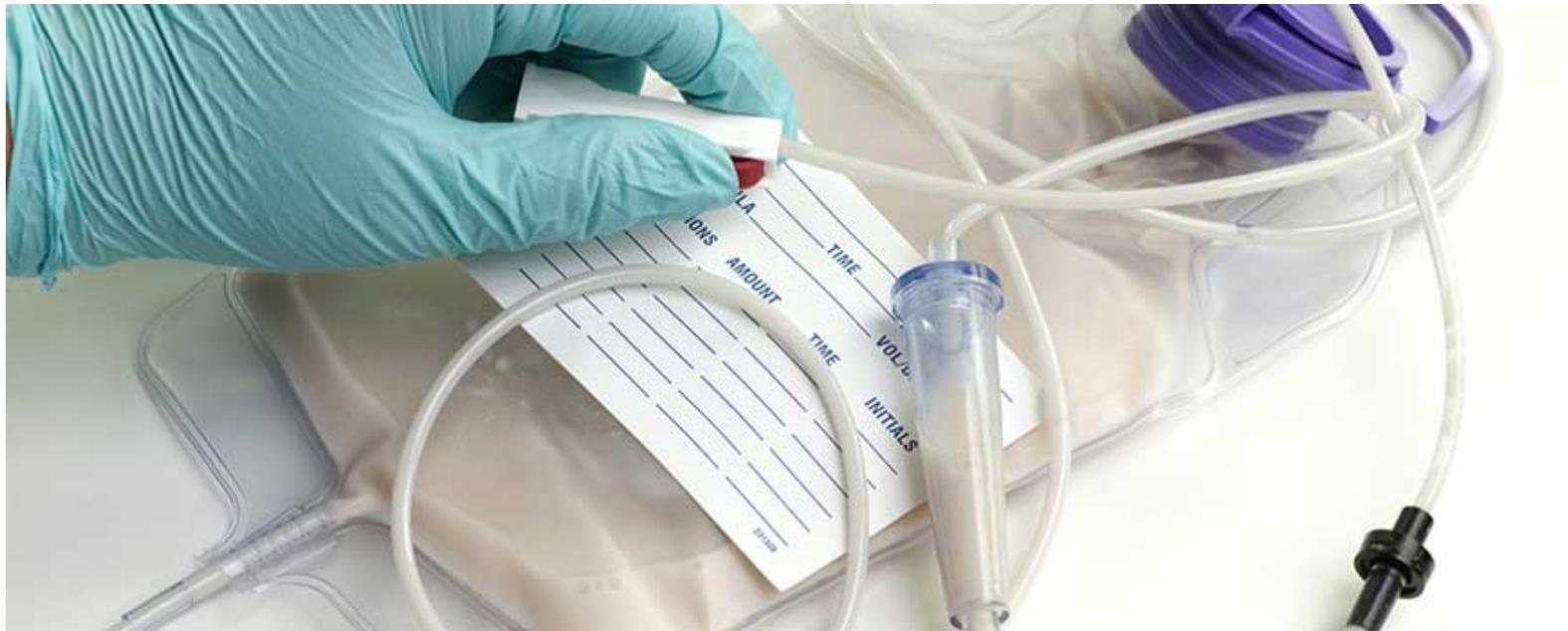
However, many older people get UTI treatment even though they do not have symptoms. This can do more harm than good. Here's why:

Antibiotics usually don't help when there are no UTI symptoms.



Feeding Tubes

4. Don't insert a feeding tube in individuals with advanced dementia. Instead, assist the resident to eat.



Feeding tubes outcomes in advanced dementia

Lee et al. / JAMDA 22 (2021) 357-363

J.K. Yuen et al. / JAMDA 23 (2022) 1541-1547

- **Meta-analysis in 2020 (Lee et al. / JAMDA 22 (2021) 357-363)**
 - 12 trials, 1805 persons with feeding tubes, 3800 without
- **Outcomes with feeding tubes**
 - Increased mortality (OR 1.7, $p=0.03$)
 - Increased pneumonia (OR 3.56, $P<0.001$)
 - Increased pressure injuries (OR 2.55, $p<0.001$)
 - No significant difference in nutritional markers (Hgb, Albumin, cholesterol)
- **Careful Hand Feeding and pneumonia risk (J.K. Yuen et al. / JAMDA 23 (2022) 1541-1547)**
 - 764 inpatients with advanced dementia (464 feeding tube, 300 hand feeding)
 - Increased pneumonia in those with feeding tube (60% vs 48%, $p<0.001$)
 - No difference in survival at 1 year

Feeding Tubes in advanced dementia

- Feeding tubes do not prolong or improve quality of life in advanced dementia
- Studies show that tube feeding does not make the patient more comfortable or reduce suffering
- Tube Feeding causes:
 - Fluid overload
 - Diarrhea
 - Abdominal pain
 - Discomfort, agitation
 - Aspiration pneumonia, pressure ulcers

Caring for Persons with Advanced Dementia

choosingwiselycanada.org/wp-content/uploads/2017/05/Feeding-tubes-EN.pdf

- Review goals of care
- Address other issues impacting loss of appetite
 - Constipation
 - Delirium
 - Depression
 - Medication side effects – sedation, dry mouth
- Support feeding by hand
 - Finger foods, favorite foods
- Dental care
 - Oral pain, dentures, daily oral care

Long-Term Medications

5. Don't continue or add long-term medications unless there is an appropriate indication and a reasonable expectation of benefit in the individual patient.



Long-Term Medications

- Consider an individualized approach:
 - Goals of Care
 - Life Expectancy – ex. ePrognosis
 - Time to benefit
 - Frailty
 - Balance of harms and benefits

Long-Term Medications

- Examples of medications that can be potentially deprescribed depending on health status and goals of care:
 - PPIs
 - Anti-hypertensives
 - Statins
 - Bisphosphonates – use FRS to determine whether or not to continue
 - Acetylcholinesterase inhibitors
 - Antidiabetic medications – can consider target of A1C of 8.5% depending on frailty (Canadian Diabetes Association, 2018)
- Keeping these medications can cause issues with mobility, function, quality of life, and mortality

Choosing Wisely (AMDA, CGS)



Don't continue cholinesterase inhibitors or memantine for dementia without periodic reassessment for perceived benefits (cognitive, functional, behavioural) and adverse effects, (CGS)



Don't routinely prescribe or continue sedative hypnotics (BDZ, trazodone) for sleep disorders in geriatric populations (AMDA, CGS)



Don't use Sliding Scale Insulin (AMDA)

Don't use hypoglycemic agents to achieve A1C targets < 7.5%, moderate control is generally better (CGS)



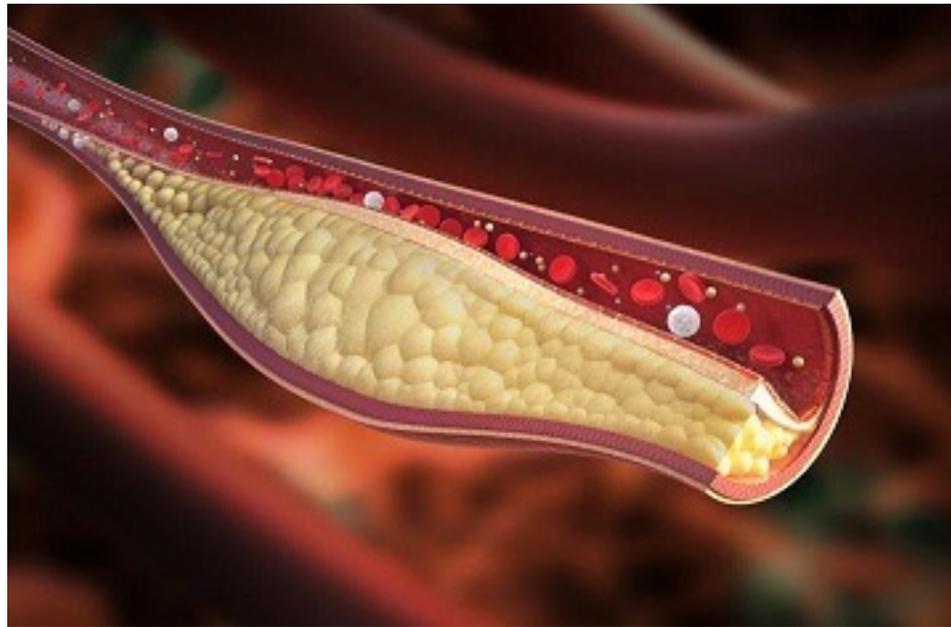
Don't prescribe a medication without conducting a medication reconciliation review, and consider opportunities for deprescribing

New Diabetes Management in LTC, CSLTCM

- Don't use sliding scale insulin for older adults living with frailty in LTC homes.
- Don't place high importance on achieving A1C target for older adults living with frailty in LTC homes, instead focus on relaxed glycemic goals with the focus on avoidance of hypoglycemic and symptomatic hyperglycemia
- New ADA and CDA guidelines incorporate recommendations for older adults, frailty
- Up to 40% of LTC residents in Canada have diabetes
- Choosing Wisely Canada webinar 'rethinking glycemic control in LTC'
- <https://choosingwiselycanada.org/event/cwtalks-sept2023/>

Screening and Routine Testing

6. Don't order screening or routine chronic disease testing just because a blood draw is being done.



Screening and Routine Testing

- Do not do these tests unless it adds to quality of life
- Screening/routine testing could lead to harmful overtreatment in frail residents nearing end of life and misuse of resources
- Individualized approach to screening based on frailty, goals of care, comorbidities, life expectancy, and patient preference

The Additional LTC Recommendation #7

7. Don't hesitate to use virtual care to complement in-person visits in order to meet the needs of residents in long-term care during the COVID-19 pandemic.



Physical Presence and Virtual Care

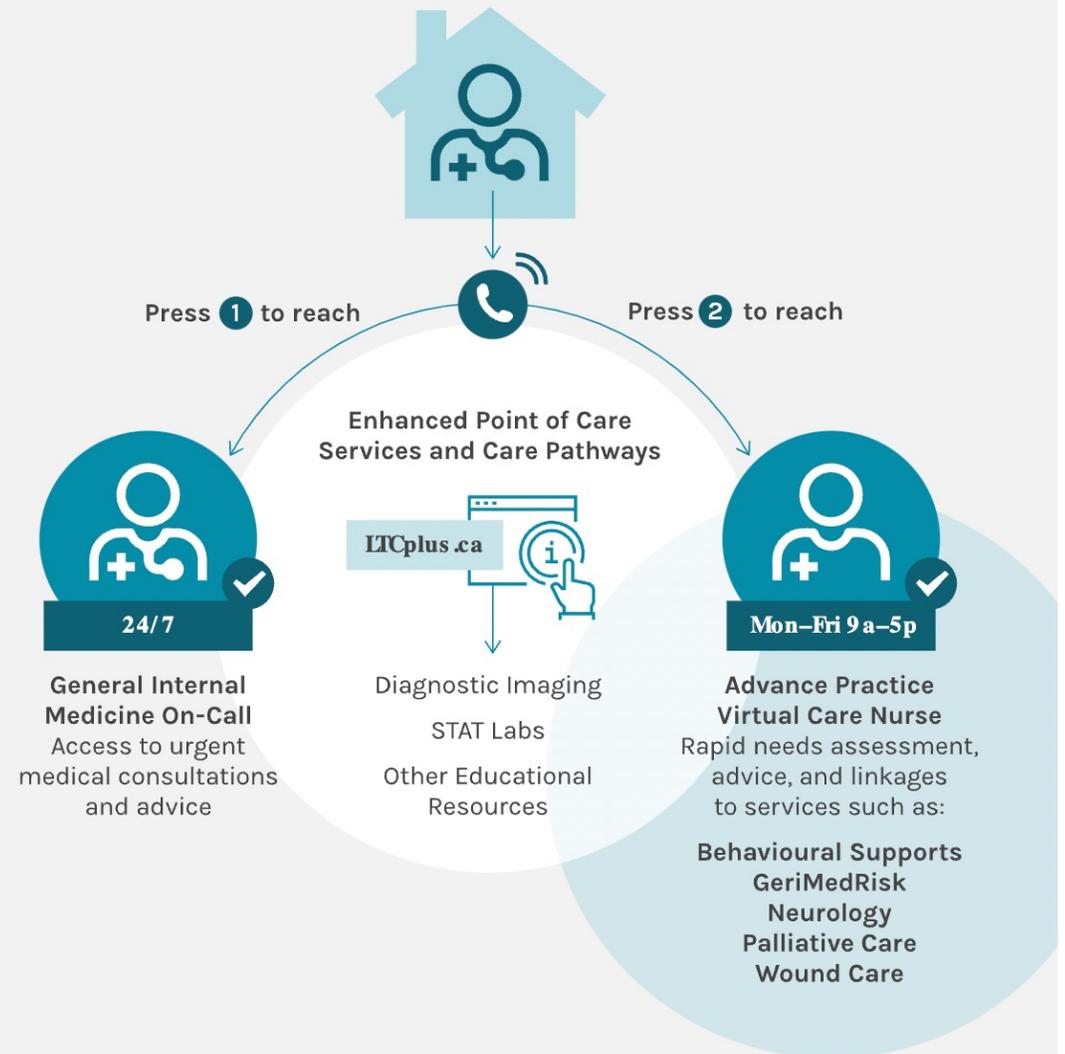
- During the pandemic, regulatory boards and CMPA developed tools, temporary remuneration changes, and policies to allow for virtual care to minimize the spread of the virus
- It can be useful for non-urgent and administrative tasks, but in-person assessment should be considered for acute illness or change in condition
- Access is variable at this time depending on the province
- There should be procedures that include the availability and integration of appropriate hardware, software, privacy, and security

A Virtual Care Innovation Example: LTC+

- Virtual care innovation in the Greater Toronto Area
- Linkages between LTC and hospital partners – including specialist consultation and allied health

LTC+ Program Overview

Attending Primary Care Provider in LTC can access...



Behaviour Neurology Virtual Behavioural Medicine

- Team of specialists including: behavioural neurologist, geriatric psychiatrist, neuro-psychologist, nurses, mental health professionals, behavioural support outreach team
- Work in close collaboration with care teams and specialized geriatric services in acute and long-term care homes
- Work with families for caregiver support
- Develop and implement care plans, access behavioural and social supports
- Completely virtual, delivered using Ontario Telemedicine Network (OTN)

Other example of Virtual Innovations in LTC?

- What is being done in your region?
- What is working well?
- Where are the opportunities?



Summary

- Choosing Wisely is difficult in the long-term care setting but critically important
- Helpful resources exist to support Choosing Wisely for advanced care planning in LTC
- Using Antibiotics Wisely - Reflect before you collect
- Virtual care can complement physical care

Thank You!



References

Unnecessary Care in Canada. Choosing Wisely Canada. Canadian Institute for Health Information. 2017.

<https://www.cihi.ca/en/unnecessary-care-in-canada>

Levinson, W., & Huynh, T. Engaging physicians and patients in conversations about unnecessary tests and procedures: Choosing Wisely Canada. CMAJ, 2014. 186(5), 325-326.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3956556/>

Walker JD, Teare GF, Hogan DB, Lewis S, Maxwell CJ. Identifying potentially avoidable hospital admissions from Canadian long-term care facilities. Medical Care. 2009 Feb 1;47(2):250-4.

<https://www.ncbi.nlm.nih.gov/pubmed/19169127>

Advance Care Planning LTC COVID

<https://www.speakupontario.ca/>

Schneider LS, Dagerman K, Insel PS. Efficacy and adverse effects of atypical antipsychotics for dementia: meta-analysis of randomized, placebo-controlled trials. The American Journal of Geriatric Psychiatry. 2006 Mar 1;14(3):191-210.

<https://www.ncbi.nlm.nih.gov/pubmed/16505124>

High KP, Bradley SF, Gravenstein S, Mehr DR, Quagliarello VJ, Richards C, Yoshikawa TT. Clinical practice guideline for the evaluation of fever and infection in older adult residents of long-term care facilities: 2008 update by the Infectious Diseases Society of America. Clinical Infectious Diseases. 2009 Jan 15;48(2):149-71.

<https://www.ncbi.nlm.nih.gov/pubmed/19072244>

References

Hanson LC, Ersek M, Gilliam R, Carey TS. Oral feeding options for people with dementia: a systematic review. *Journal of the American Geriatrics Society*. 2011 Mar;59(3):463-72.

<https://www.ncbi.nlm.nih.gov/pubmed/21391936>

Dalleur O, Spinewine A, Henrard S, Losseau C, Speybroeck N, Boland B. Inappropriate prescribing and related hospital admissions in frail older persons according to the STOPP and START criteria. *Drugs & aging*. 2012 Oct 1;29(10):829-37.

<https://www.ncbi.nlm.nih.gov/pubmed/23044639>

Clarfield AM. Screening in frail older people: an ounce of prevention or a pound of trouble? *J Am Geriatr Soc*. 2010 Oct;58(10):2016-21. PMID: 20929471.

<https://www.ncbi.nlm.nih.gov/pubmed/20929471>

Johnson KL, Dumkow LE, Salvati LA, Johnson KM, Yee MA, Egwuatu NE. Comparison of diagnosis and prescribing practices between virtual visits and office visits for adults diagnosed with uncomplicated urinary tract infections within a primary care network. *Infection Control & Hospital Epidemiology*. 2020 Oct 29:1-6.

<https://www.ncbi.nlm.nih.gov/pubmed/33118916/>

Liu M, Maxwell CJ, Armstrong P, Schwandt M, Moser A, McGregor MJ, Bronskill SE, Dhalla IA. COVID-19 in long-term care homes in Ontario and British Columbia. *CMAJ*. 2020 Jan 1.

<https://pubmed.ncbi.nlm.nih.gov/32998943/>

Cai T, Tascini C, Novelli A, Anceschi U, Bonkat G, Wagenlehner F, Bjerklund Johansen TE. The Management of Urinary Tract Infections during the COVID-19 Pandemic: What Do We Need to Know?. *Uro*. 2022 Mar 11;2(1):55-64.

<https://www.mdpi.com/1537576>

References

Collins R, Charles J, Moser A, Birmingham B, Grill A, Gottesman M. Improving medical services in Canadian long term care homes. *Canadian Family Physician*. 2020 Oct 7.

<https://www.cfp.ca/news/2020/10/07/10-07>

Gillespie SM, Moser AL, Gokula M, Edmondson T, Rees J, Nelson D, Handler SM. Standards for the use of telemedicine for evaluation and management of resident change of condition in the nursing home. *Journal of the American Medical Directors Association*. 2019 Feb 1;20(2):115-22.

<https://www.ncbi.nlm.nih.gov/pubmed/30691620/>

Gillespie SM, Handler SM, Bardakh A. Innovation Through Regulation: COVID-19 and the Evolving Utility of Telemedicine. *Journal of the American Medical Directors Association*. 2020 Aug 1;21(8):1007-9.

<https://www.ncbi.nlm.nih.gov/pubmed/32736843/>

Unruh MA, Yun H, Zhang Y, Braun RT, Jung HY. Nursing home characteristics associated with COVID-19 deaths in Connecticut, New Jersey, and New York. *Journal of the American Medical Directors Association*. 2020 Jul 1;21(7):1001-3.

<https://www.ncbi.nlm.nih.gov/pubmed/32674812/>

Grabowski, David C., and A. James O'Malley. "Use of telemedicine can reduce hospitalizations of nursing home residents and generate savings for medicare." *Health Affairs* 33.2 (2014): 244-251.

<https://pubmed.ncbi.nlm.nih.gov/24493767/>

Yuen JK, Luk JK, Chan TC, Shea YF, Chu ST, Bernacki R, Chow DT, Chan FH. Reduced pneumonia risk in advanced dementia patients on careful hand feeding compared with nasogastric tube feed. *Journal of the American Medical Directors Association*. 2022 Sep 1;23(9):1541-7.

[https://www.jamda.com/article/S1525-8610\(22\)00255-9/pdf](https://www.jamda.com/article/S1525-8610(22)00255-9/pdf)

Lee YF, Hsu TW, Liang CS, Yeh TC, Chen TY, Chen NC, Chu CS. The Efficacy and Safety of Tube Feeding in Advanced Dementia Patients: A Systemic Review and Meta-Analysis Study. *J Am Med Dir Assoc*. 2021 Feb;22(2):357-363. doi: 10.1016/j.jamda.2020.06.035. Epub 2020 Jul 29. PMID: 32736992.

<https://pubmed.ncbi.nlm.nih.gov/32736992/>