

Participatory vs Expert-led Evaluation: competing factors in guideline implementation and evaluation

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Learning Objectives

- Apply phases of drug evaluation to phases of guideline evaluation.
- Explain a complex context where deprescribing guidelines are used.
- Prioritize phases to create a research agenda.



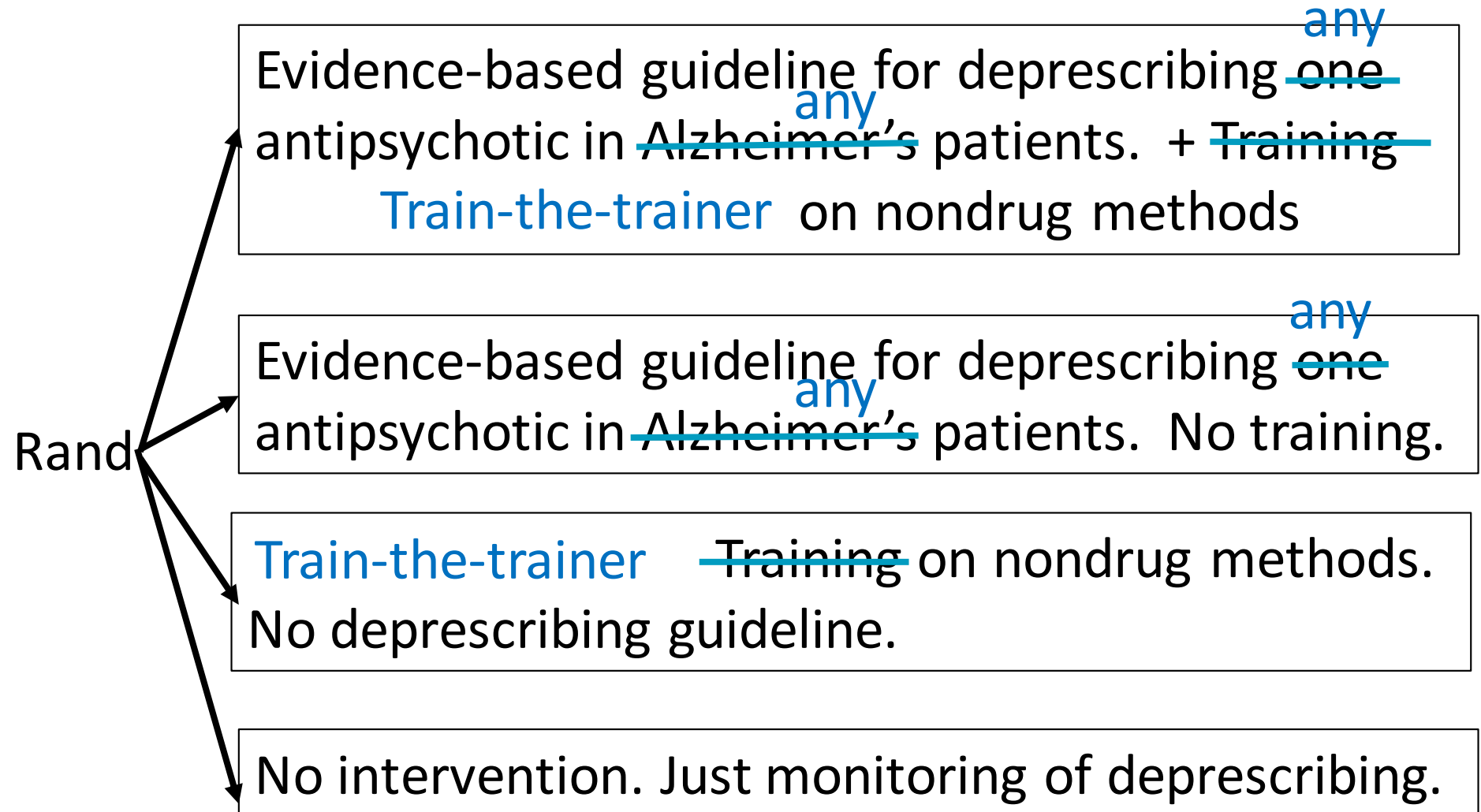
Expert Approach: Analogy with Drug Evaluation

- In vitro studies of mechanism: *algorithm of a guideline*
- Preclinical studies of toxicity: *push-back from target users*
- Phase 0: pharmacokinetics in humans: *speed, fidelity of uptake*
- Phase 1: dosing trials in healthy volunteers: *concise vs detailed*
- Phase 2: efficacy trials in patients: *hospital implementation trial*
- Phase 3: effectiveness trials in select patient populations: *pragmatic trial of guidelines in real-world community care*
- Phase 4: post-market surveillance of actual use in the general population: *deprescribing program rapid cycle evaluation*



Effectiveness

Imagine an RCT of Impacts: an ~~Efficacy~~ Trial



Participatory Approach: Call for Less Antipsychotics in Residential Care (CLeAR)

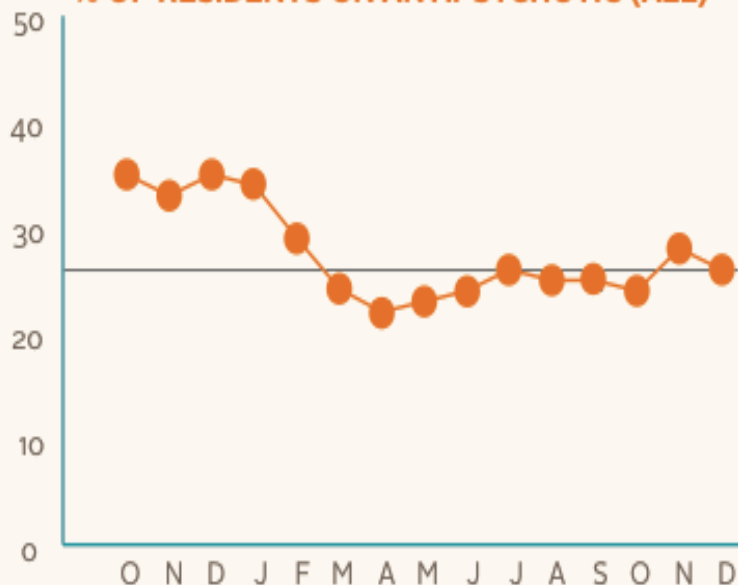
- Train the trainer in non-drug methods of care for agitated patients
- Were guidelines used in training? What was said about deprescribing?
- How influential or problematic was the deprescribing advice?
- Intervention was by nurses. How were prescribers involved?
- Did the prescribers feel any need for guidance, such as guidelines?
- Among those who felt need, when did they want to check guidelines?
- Did they just want tapering advice? Did they care about source?
- Waves of institutional participation, starting with early adopters
- Need enthusiasm among clinicians. Need simple evaluation methods.
- Quality improvement methods: monthly monitoring of success rates



CLeAR results: trends. Also compare Early vs Delayed

FAIR HAVEN BURNABY

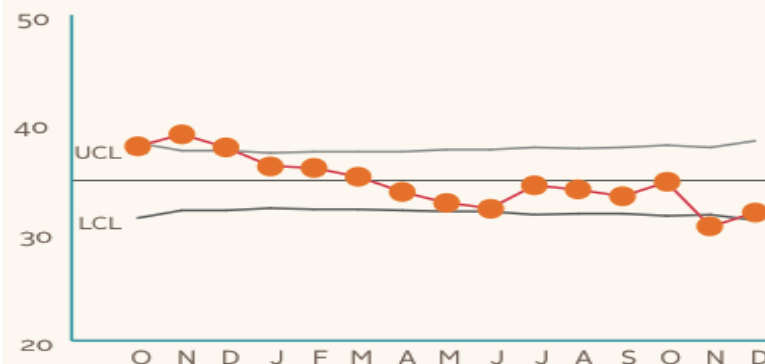
% OF RESIDENTS ON ANTIPSYCHOTIC (ALL)



FAIR HAVEN UNITED CHURCH HOMES IN BURNABY, BC, initiated conversations between nurses and physicians and involved their recreation department in developing programs for residents. The team was able to reduce their usage from 35% to 26%.

PERCENT OF RESIDENTS PRESCRIBED TO RECEIVE ANY ANTIPSYCHOTIC

Provincial Aggregate



PROVINCIAL ANY: % of residents prescribed an antipsychotic within participating facilities submitting reports and is calculated by counting the total number of residents prescribed any type of antipsychotic divided by the total number of residents.



If Effectiveness Trial shows low impact... Why? Process Evaluation. Implementation Science.

Usability of guidelines. Protocol deviations in applying nondrug methods of handling agitated patients.

Subgroup analysis: what types of patients can be deprescribed antipsychotics?

Frequency of rebound among patients who were deprescribed antipsychotics without tapering.

Interviews with clinicians about need for guidelines.




Revised hierarchy of evidence quality: From expert methods to participatory methods

- IMPACTS
 - Double-blind RCT of selected, unrepresentative population
 - Pragmatic RCT of real-world patients and clinicians
 - Controlled time-series analysis of impacts on population trends
 - Before-after observational study of trends
 - Case-series (clinical experience) and anecdotes about failures
- PROCESS
 - Comprehensive program evaluation (macro level: whole system)
 - Narrative of what happened in one institution (meso level)
 - Watching individual clinicians using individual tools (micro level)
 - Interviews of perceptions of users in retrospect



GP Support Program: Action-Period Tools Grant

User-developed tools for deprescribing



MEDSTOPPER

beta

Starting medications is like the bliss of marriage and stopping them is like the agony of divorce. - Doug Danforth

HOME ABOUT FAQs RESOURCES CONTACT

MedStopper is a deprescribing resource for healthcare professionals and their patients.

1 Frail elderly?

2 Generic or Brand Name:

3 Select Condition Treated:

Generic Name	Brand Name	Condition Treated	Add to MedStopper
pioglitazone	Actos	<input type="text" value="type 2 diabetes"/>	<input type="button" value="ADD"/>













Previous Next

MedStopper Plan

Arrange medications by:



Concise Guide for Polypharmacy Risk Reduction

Stopping Priority RED=Highest GREEN=Lowest	Medication/ Category/ Condition	May Improve Symptoms?	May Reduce Risk for Future Illness?	May Cause Harm?	Suggested Taper Approach	Possible Symptoms when Stopping or Tapering	Beers/ STOPP Criteria
	pioglitazone (Actos) / Glitazone / type 2 diabetes		 CALC / NNT		Tapering not required	symptoms of increased thirst/increased urination, re-measure A1c in 3 months, measure blood glucose only if high glucose symptoms occur/return	None
	olanzapine (Zyprexa) / Second generation antipsychotic / agitation in dementia				If used daily for more than 3-4 weeks. Reduce dose by 25% every week (i.e. week 1-75%, week 2-50%, week 3-25%) and this can be extended or decreased (10% dose reductions) if needed. If intolerable withdrawal symptoms occur (usually 1-3 days after a dose change), go back to the previously tolerated dose until symptoms resolve and plan for a more gradual taper with the patient. Dose reduction may need to slow down as one gets to smaller doses (i.e. 25% of the original dose). Overall, the rate of discontinuation needs to be controlled by the person taking the medication.	agitation, activation, insomnia, rebound psychosis, withdrawal- emergent abnormal movements, nausea, feeling of discomfort, sweating, vomiting, insomnia these symptoms vary somewhat depending on the specific antipsychotic	Details
	rabeprazole (Aciphex, Pariet) / Proton pump inhibitor / heartburn/GERD				If used daily for more than 3-4 weeks. Reduce dose by 50% every 1 to 2 weeks. Once at 25% of the original dose and no withdrawal symptoms have been seen, stop the drug. If any withdrawal symptoms occur, go back to approximately 75% of the previously tolerated dose.	return of symptoms, heartburn, reflux	Details

PRINT PLAN



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INSTITUT DE RECHERCHE
Bruyère
RESEARCH INSTITUTE

Medication Review Preparation Form



MOUNT ST. MARY HOSPITAL
 Medical QI & Interdisciplinary Team
 Medication Review Preparation Form

Date of Review: _____

Last GP Visit: _____

NURSE TO COMPLETE:

Are there any recent marked changes to the resident's health status? YES / NO Specify: _____

Referral to Geripsychiatrist at current facility? YES / NO

Is patient a fall risk? Scott Score: Date: Number of falls in past 6 months or since last review: Stands? YES / NO Walks? YES / NO

Are there any PRN's that are being used frequently that could be ordered regularly?

Are there any PRN's that have not been used in the past 60 days? Specify: _____

Are there any Nursing concerns about medications? See MAR & TAR & identify: _____

VITAL SIGNS	LATEST VALUE		PREVIOUS VALUE (as needed)	
	Value	Date	Value	Date
BP - Blood Pressure (mmHg):				
P - Pulse (BPM) If < 50 list previous:				
W - Weight (kg)				
BMI				

Nurses Signatures: _____



1

NURSE select:	
	Cognitiv Issues
a	Dizzy, Balance
b	Cognition
c	Memory Loss
d	Naus, Anorexia
e	Depression
f	Confusion
g	Delirium
h	Agitation
i	Insomnia

Phys Issues	
j	Dyspnea
k	Edema
l	Dry Mouth
m	Urine Freq
n	Constipation
o	Immobility
p	Leg Pain
q	General Weak
r	Anemia

Function	
s	Gagging
t	Transfer
u	Walking
v	Dressing
w	Bathing
x	Social

Goals	
y	Survival
z	CPR
a'	Hosp
b'	Falls
c'	
d'	

Printout: **Med Rev Prep Form**

Memory Loss: _____

Dizzy, Balance : _____

Dry Mouth: _____

General Weakness: _____



Printout: **Med Rev Prep Form**

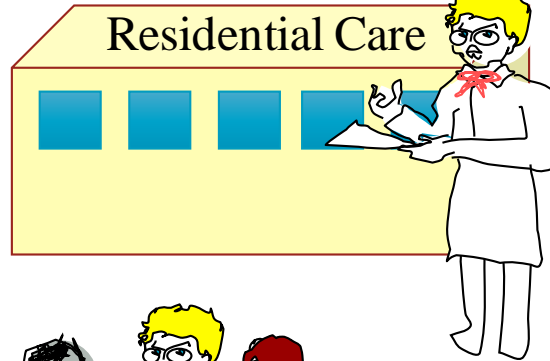
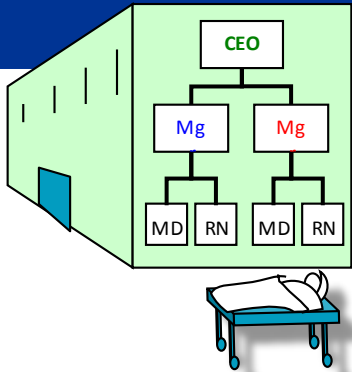
Numb of Factors

- 3 c) Memory Loss: MUST 24
- 5 a) Dizzy, Balance : _____
- 3 l) Dry Mouth: whisper
- 8 q) General Weakness: _____
- 2 d) Nausea, Anorexia: no interest eating
- 4 n) Constipation: pain
- 1 m) Urinary Frequency: nocturia
- k) Mild edema: _____
- 2 p) Leg Pain: _____
- t) Transfer: _____
- u) Walking: _____
- v) Dressing, Bathing: _____
- x) Social: _____
- y) Survival: _____
- z) CPR: _____
- a') Hospital: _____
- b') Fall: _____
- c') Gagging: _____

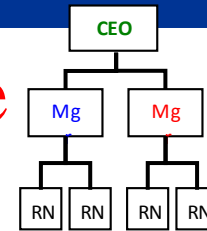
Indication (Dx)	Meds and other agents	Actions	Contributes to...
Depression	Amitriptyline	Taper:D/CI	Dry q) Weak c) Mem n) C
Insomnia	Zopiclone	Reduce	c) Mem
Delirium	Quetiapine	Taper:D/C I)	Dry q) Weak c) Mem n) C
MildDementia	-- --		
CKD	Ramipril		
CHF, edema	Furosemide	Reduce	m) Urine Freq
HTN	Bisoprolol	Reduce	
A Fib	Digoxin		d) Naus
iHD	NTG patch	D/C	q) Weak
A Fib	Warfarin		q) Weak: Anemia
IHD	ASA		q) Weak: Anemia
IHD	Rosuvastatin	D/C	p) Leg Pain:
DM	Glyburide	D/C	q) Weak
DM	Metformin		q) Weak
Ur Incont	Ditropan XL	Taper:D/C	l) Dry q) Weak n) Const
Ulcer prev	Esomeprazole	Taper	p) Leg Pain:
Osteoporosis	Alendronate	D/C	d) Naus
Osteoporosis	Ca	D/C	n) Const
Osteoporosis	Vit D		
PainLegs	Tylenol		



Med Reviews in BC's 'Residential Care Initiative'



Nurse



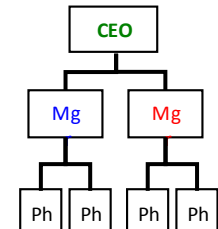
Nursing Home Corporation



Care Conference

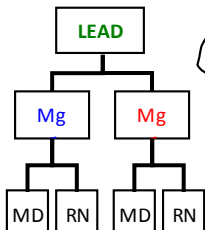


Pharmacist



Pharmacy Chain

MD



Division of Family Practice



Family



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Conclusions

- Like real-world studies of the use of meds, real-world studies of the use of guidelines might be important for the design of future guidelines
- Participatory approaches to process evaluation of implementations in complex systems might be as important as rigorous effectiveness trials by experts.



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