DISRUPTION FOR HEALTHY FUTURES

Evolve

Better care. Better decision-making. Better use of resources.

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Welcome to Country

We would like to show our respect and acknowledge the Gadigal people of the Eora Nation who are the traditional Owners and Custodians of the Land on which this meeting takes place, and their Elders past and present.

We extend that respect to other Aboriginal and Torres Strait Islander people who are present.

What is Evolve?

Part of a global movement, Evolve is an initiative led by physicians and the RACP to drive high-value, high-quality care in Australia and New Zealand.

Through a rigorous peer-review process, Evolve identifies a specialty's Top 5 clinical practices that, in particular circumstances, may:

- be overused;
- provide little or no benefit; or
- cause unnecessary harm.

Evolve is a founding member of the Choosing Wisely campaign in Australia and New Zealand.

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This Congress Session

1	Outline of Evolve implementation opportunities and strategies	Sarah Hilmer
2	Examples of Evolve projects	Jason Soon Brendan Ng
3	Workshop on implementation of Evolve	All of us

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What does Evolve mean for physicians?

Evolve aims to:

- Safely and responsibly phase out low-value tests, treatments and procedures where appropriate;
- Support physicians in providing high-value care to patients based on evidence and expertise;
- Provide a trusted process for each specialty to remain up-to-date with the latest evidence;
- Enable physicians to influence the best use of health resources, reducing wasted expenditure; and
- Ensure patients receive the test, treatment or procedure they need.

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Evolve: Call to action

There are currently 20 Evolve Top 5 Lists available, with more in development.

The RACP is encouraging physicians to implement these recommendations in their work and health service.

Evolve: Reflecting on Overall Practice

Evolve Top 5 Lists encourage physicians to consider:

- Are these low-value practices that I do?
- Are these low-value practices that I see happening?
- Are there systems, processes or expectations that encourage or drive these low-value practices in my health service?

Evolve: Considering Individual Patients

Evolve encourages shared decision-making with a patient and/or carer.

Evolve encourages physicians to reflect on why a clinical practice will **not** be of benefit to a patient.

Evolve encourages physicians to ask these Top 5 Questions:

- Should I undertake this practice for this patient?
- Do the risks to the patient outweigh the benefits?
- Does the patient really need this test, treatment or procedure?
- Does this recommendation make a difference to my clinical-decision making?
- Is there a simpler, safer option?

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Evolve: Implementation Opportunities

Evolve encourages physicians to include the recommendations in routine care:

- Education sessions
  - e.g. grand rounds, clinical case reviews, teachable moments
- Clinical handovers
- Clinical audits and feedback
  - Engage hospital management/executive
- Computer decision support systems
  - Electronic ordering and prescribing systems
- Discussions with patients and/or carers
  - Visible recommendations (e.g. waiting rooms)
  - Shared decision making

Example from Grand Rounds Presentation

Case Presentation

- 89 year old woman admitted with pneumonia
- Medication review in hospital:
  1. Cholinesterase inhibitor and oxybutynin
  2. Antihistamines for tomato allergy
  3. Toxic dose of digoxin
  4. Statin for primary prevention
  5. 12 chronic medicines

Evolve: Research

RACP is currently undertaking two Advanced Trainee Demonstration projects on ANZSGM Evolve Top 5 List items.

RACP encourages Advanced Trainees and Fellows to develop and conduct research projects on specific recommendations as part of specialty training and CPD.

Outcomes from these projects can be:

- Presented at conferences or published in journals
- Adapted across health services and specialties
- Used as ongoing references or resources
- A career development opportunity

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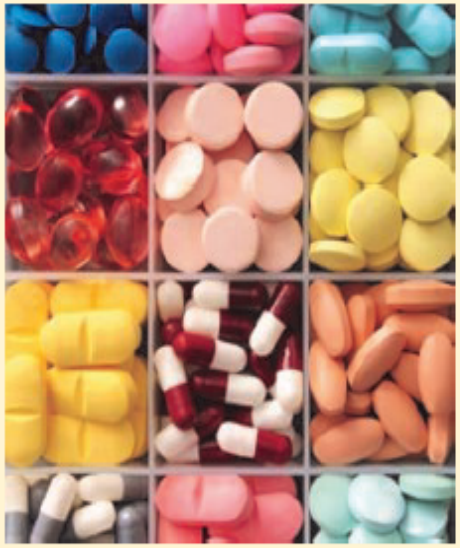
Example from Research

NSW Health Translational Research Project

Professor Sarah Hilmer ($928,000 over two years)

"Reducing Inappropriate Polypharmacy for Older Inpatients"



This project aims to sustainably reduce inappropriate polypharmacy (use of harmful or unnecessary medicines) in older inpatients, something that is almost universal among this group of people and poorly addressed by routine care models.

The aim is to design, implement and evaluate a sustainable intervention for integrated pharmaceutical care. The intervention will adapt existing systems for medication management and communication between patients, hospitals and community practitioners.

Implements Evolve Criteria from

- ASCEPT
- ANZSGM
- IMSANZ
- ANZSPM
- GESA

Uses

- Education
- Guidelines
- Quality Indicators: Clinical audits and feedback
- Computer decision support systems
- Consumer information

Reducing Unnecessary Imaging and Pathology Tests: A Systematic Review

Jason Soon
A/Manager, Strategic Policy and Advocacy
Royal Australasian College of Physicians

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Reference

Reducing Unnecessary Imaging and Pathology Tests: A Systematic Review

Hiscock H, Neely R, Warren H, Soon J, & Georgiou A. *Pediatrics* 2018;141(2):e20172862

Low-Value care systematic review

Review Question: Which interventions work to reduce clinician ordering of unnecessary imaging and/or pathology tests in children?

Aims:

- to describe and examine the comparative effectiveness of various interventions;
- to examine any wider effects on LOS, admissions, cost reductions etc.

'**Unnecessary tests**' are, for example, radiography, CT scan, MRI or routine bloods that are conducted without clinical indication to do so.

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Search strategy

Systematic search: Medline, Embase, Cinahl, PubMed and Cochrane

Dates: 01/01/1996 - 04/29/2017

Exclusions: non-English language, adult population, non-intervention, N=1 case reports, or studies with no control group.

Grey literature: eg. Grey literature databases; Google Scholar; white papers; health services conference abstracts; College's reports (eg. RACP); Choosing Wisely; EVOLVE; conference abstracts.

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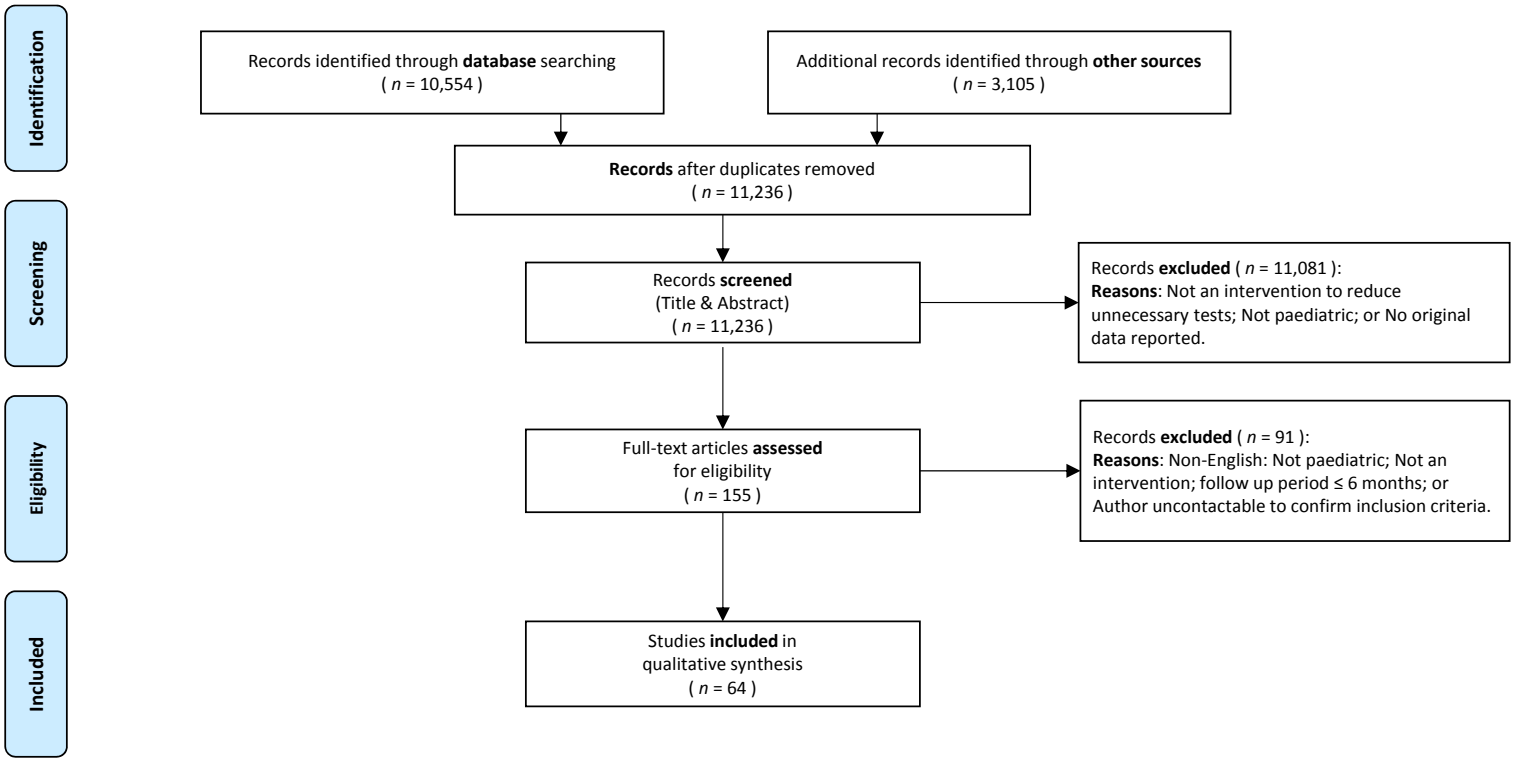
Prisma flowchart



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Intervention characteristics

- ***Mostly:*** **United States (*n* = 53);** Australia (*n* = 4)
- ***Mostly:*** **Single site (*n* = 51)**
- ***Mostly:*** **before-after design (*n* = 44);** RCT (*n* = 1)
- ***Equally: Single*** **component (*n* = 34); *Multi-faceted* (*n* = 30)**
- ***Included components:***
  - System/Process-Based *(n = 54);*
  - Educational *(n = 30);*
  - Audit & Feedback *(n = 16);*
  - External guideline *(n = 7);*
  - Incentive or Penalty *(n = 0)*

Findings

Interventions have greater effect when:

- Targeting **clinicians and patients** together (RR = 61.9%) (rather than either alone)
- Targeting either **imaging** (RR = 41.8%) or **pathology** testing (RR = 48.8%) (rather than both at once)
- Incorporating is multi-faceted, comprising **3 components** (RR = 45.0%) (rather than 1 or 2 components)

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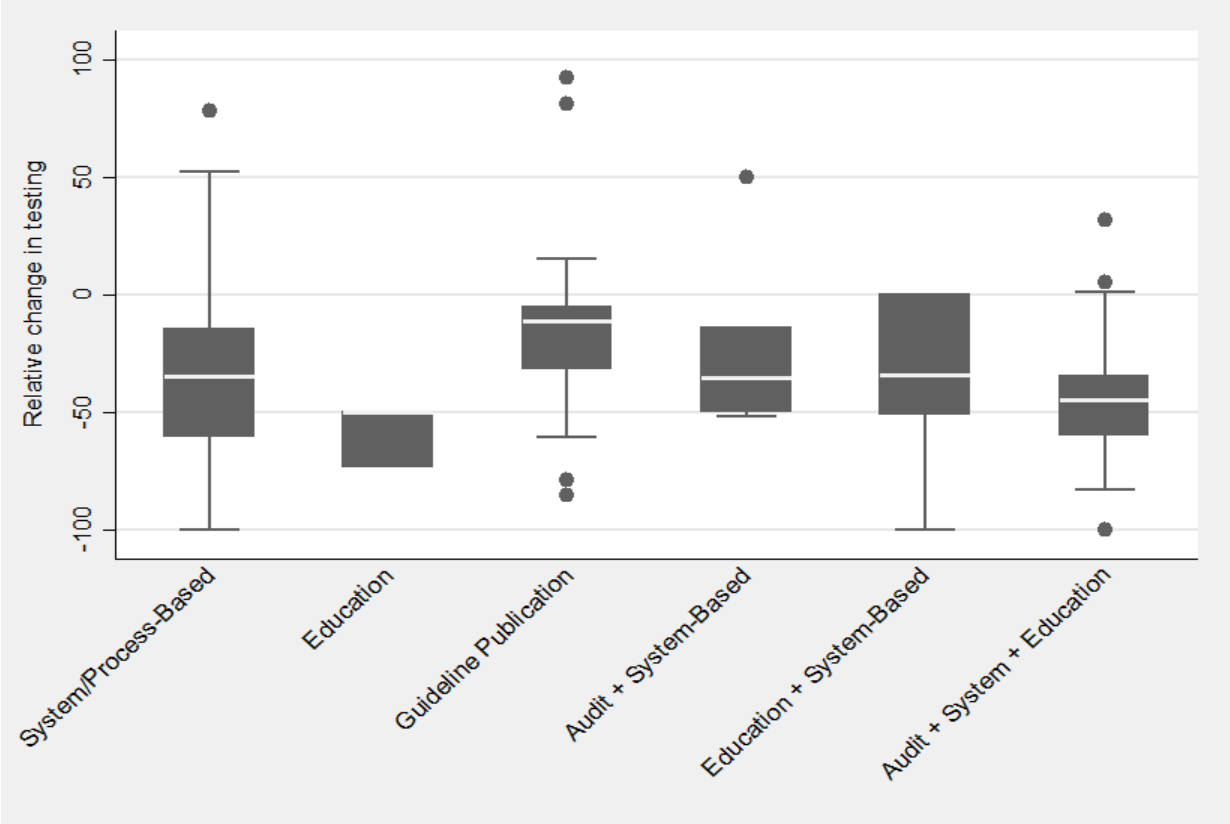
What interventions work best?



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Inappropriate polypharmacy and deprescribing:

An online education module for hospital clinicians

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Introduction

Polypharmacy is common in the older inpatient, yet not routinely addressed.

Key enablers and barriers exist to deprescribing[1]

- Awareness
- Self-efficacy
- Clinical inertia
- Feasibility

Recent studies (Canada)

- Awareness of polypharmacy in community-dwelling older people[2]
- Self-efficacy of deprescribing in community physicians[3]

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1. Anderson et al. *BMJ Open,* 2014
2. Farrell B, et al. Res Social Adm Pharm. 2017
3. Turner et al.

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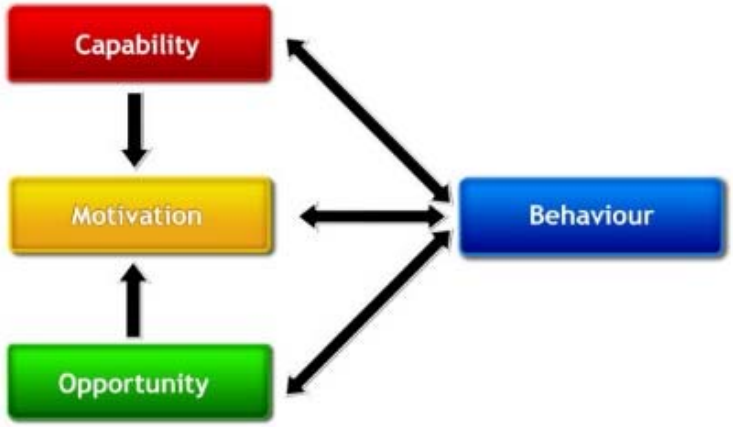
Introduction

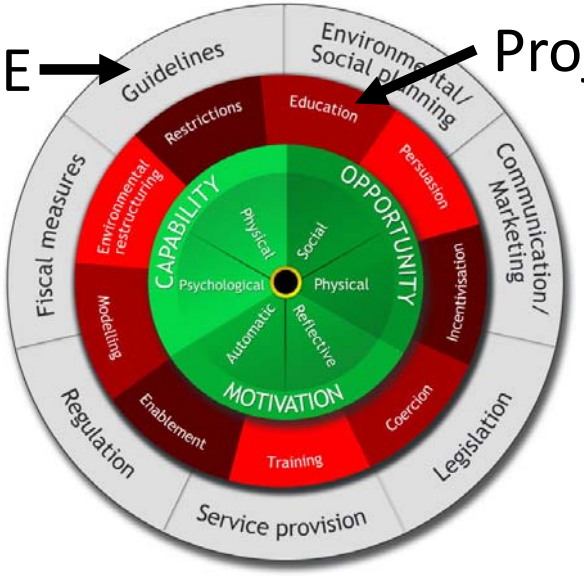
Results seen in trials do not match real world outcomes

- Maybe due to a lack of theoretical underpinning for implementation[1]

Behaviour Change Wheel[2]



EVOLVE → Project



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1. Cooper JA, et al. BMJ Open. 2015
2. Michie S, et al. Implementation Science 2011

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Online education and polypharmacy

Moderate cost, easily distributable, but uncertain efficacy in RCTs

- Maybe due to a lack of theoretical underpinning for implementation

ELICADHE study (Italy)[1]	Cullinan et al (Ireland)[2]
5 x 1 hour modules Hospital prescribers	1-2 hour module Junior hospital doctors 60% not heard of Beers Criteria 55% not heard of START/STOPP
• No change in PIM prevalence at discharge, nor mortality or re-hospitalisation at 12 months • No clinician data	Intervention group: • Improved knowledge at 3 months • Increased confidence in prescribing for older inpatients

1. Franchi, Aging Clin Exp Res 2014
2. Drugs Aging, 2017

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The Module

POLYPHARMACY

WHAT IS IT ?

Case-based: Brian 79M
Runtime: 11:04 mins

Available now: My Health Learning (HETI platform)
Course code: 185346268
Key word: Polypharmacy

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The Module

Part of a larger multi-part interventional project
Translational Research Grant 274

ANZSGM Evolve Top 5 List: Recommendation 2

Do not prescribe benzodiazepines or other sedative-hypnotics to older adults as first choice for insomnia, agitation or delirium

ANZSGM Evolve Top 5 List: Recommendation 4

Do not prescribe medication without conducting a drug regimen review

The Module: Aims

Promote awareness of inappropriate polypharmacy amongst hospital staff, with a focus on management in hospitalised patients.

Engage the audience into the activity of deprescribing, highlighting interdisciplinary communication as a foundation of this activity.

Reference and direct learners to the available supporting tools and systems

Research Questions

What **level of awareness and self-efficacy of inappropriate polypharmacy and deprescribing** is present in **hospital clinicians** following completion of a HETI online educational module on inappropriate polypharmacy?

What **common factors** influence the **hospital clinicians'** responses to the online educational module on inappropriate polypharmacy and deprescribing after completing the module?

What is the **immediate impact of a HETI online educational module** on awareness and self-efficacy of inappropriate polypharmacy and deprescribing in **senior medical students**?

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Ethics Approval 05 April 2018
Discuss results with HETI
Review by ethics

HETI Polypharmacy module Developed
Released 06 March 2018

Phase 1) Questionnaire Development
Submitted 12 Feb 2018

Phase 2) Recruitment

Setting:
Selected wards, 6 study hospitals
Sydney Medical School Clinical Schools

Hospital Clinicians
(41 questions)
Post-module

Medical Student
(49 questions)
Pre- and post-module

Results
Descriptive statistics, Cronbach's alpha;
CHERRIEs reporting for internet surveys

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Results: Questionnaire Development

Demographics:

- Sex
- Age
- Role
- Clinical experience
- Setting

Awareness

- Polypharmacy
- Clinical roles (and medical student perception)
- Tools for deprescribing
- Current activity

Self-Efficacy

- Adapted 14 point self-efficacy scale for hospital clinician and medical student use

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Results: Pilot

- Expert panel of doctors, pharmacists and medical educators
- REDCap database
- Face validity, content validity and readability
- Piloted: 35 participants
  - 6 doctors, 12 pharmacists, 6 allied health, 3 medical students, 8 nurses
- Mean questionnaire completion time: 07:38 mins, SD 02:16
- Mean questionnaire System Usability Score = 77.73/100, SD 11.74
- Developed mobile phone version

Strengths and limitations

Strengths

- Module is good quality, shorter than previously described modules
- Collecting clinician data
- Broad sample population including medical students
- Theoretical underpinning
- Part of larger intervention of deprescribing in hospitals

Limitations

- Respondent bias and convenience sampling
- ‘Mandatory training fatigue’
- Medical student proxies for hospital clinicians
- Cross-sectional measure

Next steps

- Discuss with study partners results of pilot
- General release of questionnaire attached to module
  - Open for 6 months
- Report descriptive statistics and Checklist for Reporting Results of Internet E-Surveys (CHERRIEs)
- Expansion
  - Medical students
  - Interstate
  - International

Conclusions

- Education is an intervention function that is an important component of behavioural change
- Use of online education in deprescribing may promote behavioural change
- Development of the NSW Health HETI module ‘polypharmacy in the older inpatient’ is complete and available for viewing
- Questionnaire has completed piloting
- Trainees can take the lead in implementation of the Evolve guidelines

Tips for Advanced Trainees

- Decide on an idea- refine, refine, refine
- Find good supervisors, be part of a project
- Find a framework to base your work on
  - Evolve, Behaviour Change Wheel
- Establish a timeline
  - Get ethics in early

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Acknowledgements

Supervisors: Prof Sarah Hilmer and Prof David Le Couteur
Investigators: Jeanette Carey, Catherine Richards, George Szonyi, Bill Thoo, Mai Duong, Sarita Lo, Justin Turner
Others:
Katie Willey and Malcolm Brown (NSW Health: Health Education Training Institute)
Sydney Medical School Clinical Schools
Funding: NSW Health Translational Research Grant 274, RACP Evolve, ANZSGM Travelling scholarship and Alzheimers and Ageing Institute/Penney Ageing Research Unit

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Workshop

Dr Sarah Hilmer
Dr Brendan Ng
Mr Jason Soon

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