Establishing pathways and processes to implement and sustain evidence-based fall prevention in primary care

THE iSoLVE PROJECT

4th International Conference of Long-term Care Directors and Administrators, UNSW, 2018
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cepar ARC CENTRE OF EXCELLENCE IN POPULATION AGEING RESEARCH

CHALLENGES IN EVIDENCE UPTAKE AND TAKING TO SCALE

Older people think a fall is just a part of 'ageing'

GP's report barriers

Screening does not lead to intervention

Interventions in research have better outcome

< 30% of health care providers routinely screen for falls.

No clear model for delivery in primary care

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THE iSOLVE PROJECT

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NHMRC Partnership Project Grant: 1072790 (2014-2019)

ANZ Clinical Trial Registry: ACTRN12615000401550

Website: www.bit.ly/isolve

iSOLVE Integrated SOLutions for sustainable fall preVEntion

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CLINICAL EXCELLENCE COMMISSION

SYDNEY NORTH Health Network

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AIMS OF THE ISOLVE PROJECT

Establish integrated processes and pathways to identify older people at risk of falls and engage a whole of primary care approach to fall prevention.

Form referral pathways and networks with GPs and allied health service providers

Improve access to appropriate fall prevention interventions for older people, ensure ongoing knowledge acquisition and sustainable action by healthcare professionals and organisations.

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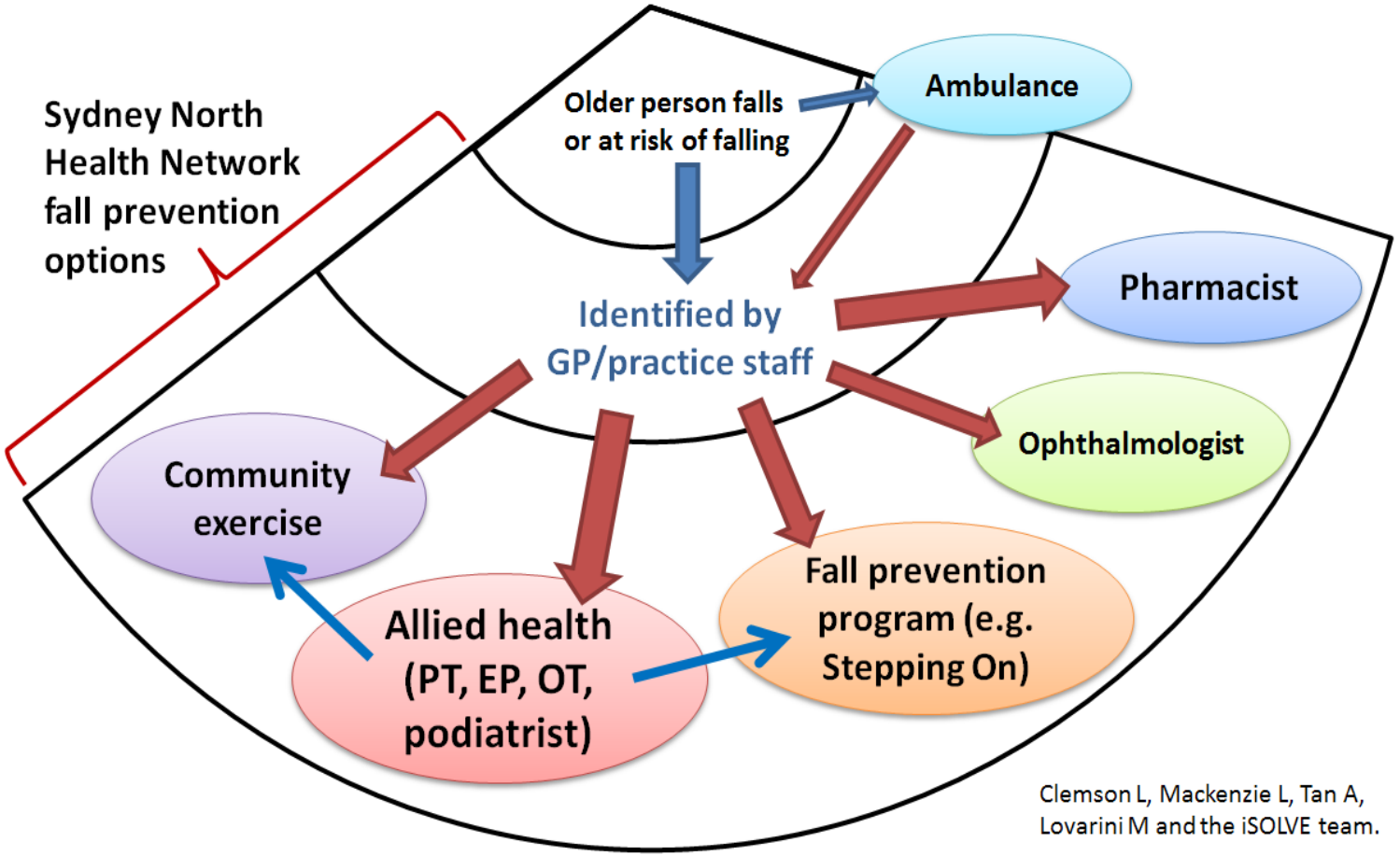
iSOLVE
Integrated SOLutions for sustainable fall preVEntion

iSOLVE: the patient referral journey



Clemson L, Mackenzie L, Tan A, Lovarini M and the iSOLVE team.

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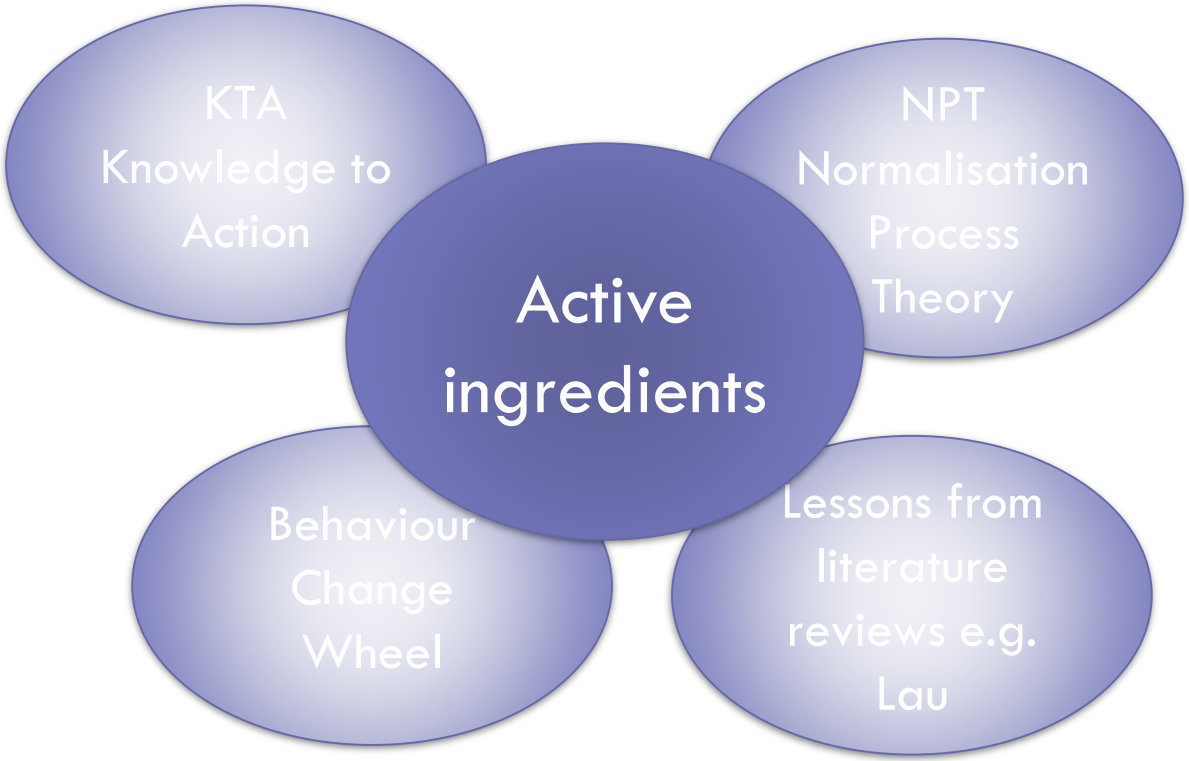
USING A CONCEPTUAL MODEL TO UNDERSTAND HOW?



If you know how it works you can identify

- Active Ingredients
- Behaviour change strategies
- Implementation methods
- Implementation resources
- Barriers and enablers

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ACTIVE INGREDIENTS OF ISOLVE IMPLEMENTATION INTERVENTION

Identifying and managing fall risk in GP practice

- GP educational detailing
- Decision support tools
- Tailoring to fall management
- Paper or GP computer systems

Allied health – knowledge translation and upskilling

- Local workshops
  - evidence-based, interactive
  - Planning for implementation

Establishing referral pathways

- Network communication strategies
- Mapping of AHPs
- Integrated in Health Pathways
- Links with ambulance services

Diffusion and implementation

- Woking with partners
- On-line decision tool for general practice
  On-line GP learning module
- Guiding strategy document

Clemson et al., implementation science 2017

PREVENTING FALLS WORKSHOPS (N=13) IN THE LOCAL AREA

2016-2017

Exercise interventions

Functional Exercise (LiFE)

Home environment interventions

Preventing falls from the ground up – ankle and foot interventions

Managing medications

2018

Implementing falls prevention in general practice

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Research methods: hybrid type 2 effectiveness-implementation study

Develop implement-ation intervention	How does it work? GPs and Allied Health Professionals (AHPs) Process evaluation Interviews and surveys with allied health professionals and GPs Social network mapping	SNPHN-wide roll out of iSOLVE
	Is it effective? GP practice change, patient falls Cluster randomised pragmatic trial 27 general practices; 560 patients	
Geographical impact? - annual survey of GPs across the SNPHN		

iSOLVE 5 year development and evaluation phases

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THE GENERAL PRACTICE WORK FLOW

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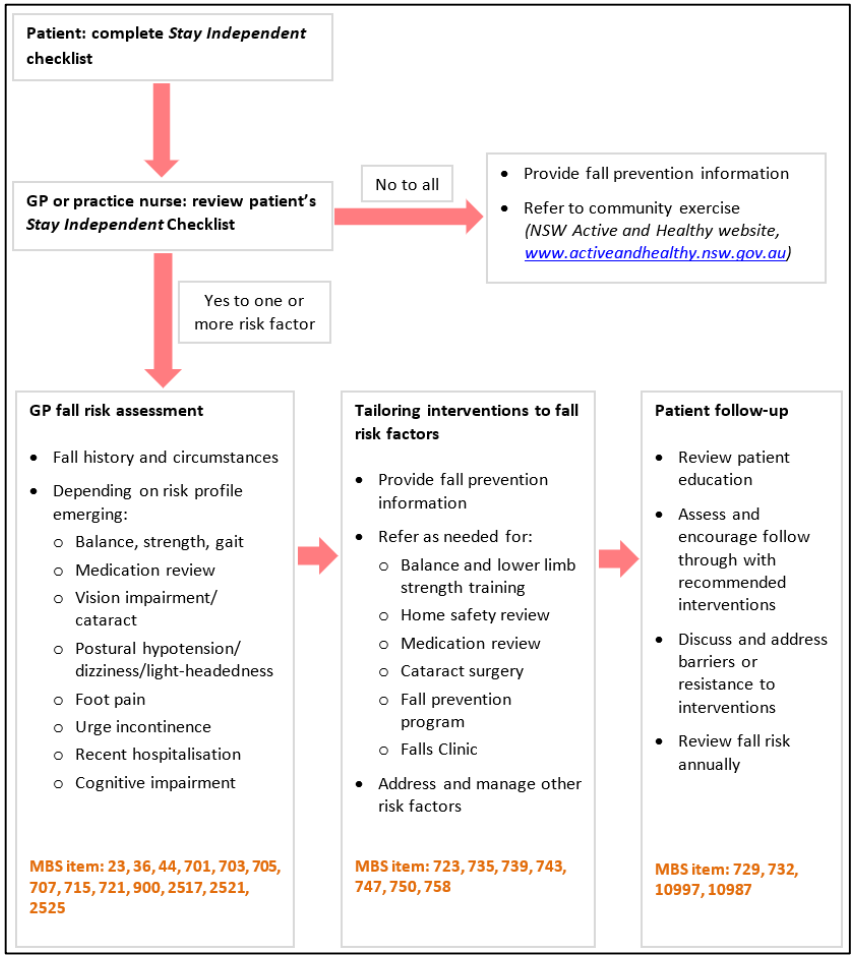
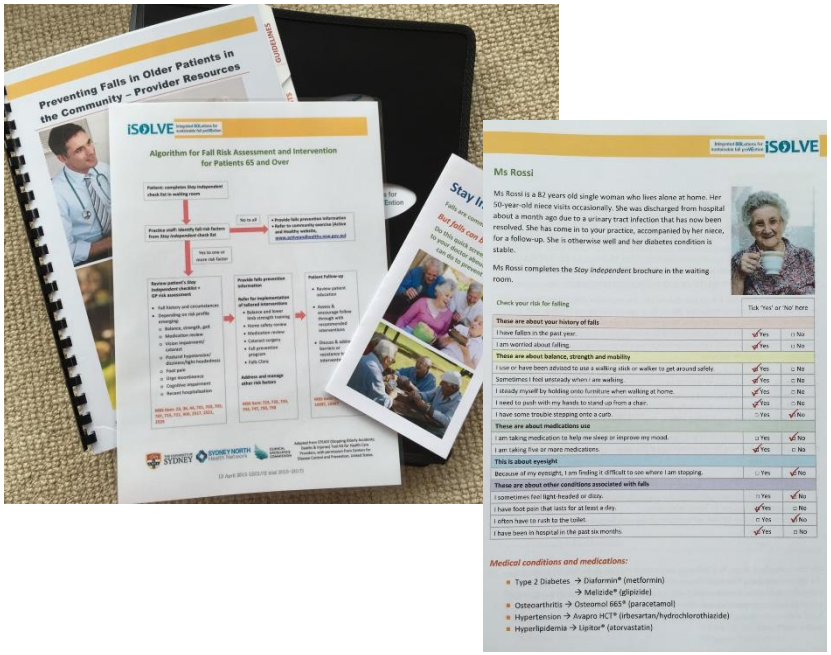
iSOLVE DECISION TOOLS AND GP RESOURCES



Identify patients at risk

When you see a patient 65 years or over, ask these two questions routinely:

- Have you had any falls in the past year?
- Are you worried about falling?



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Identify Patients

- GP asks the question
- Practice nurse screen
- Annual reminders
- Recall letters

Patient self assessment

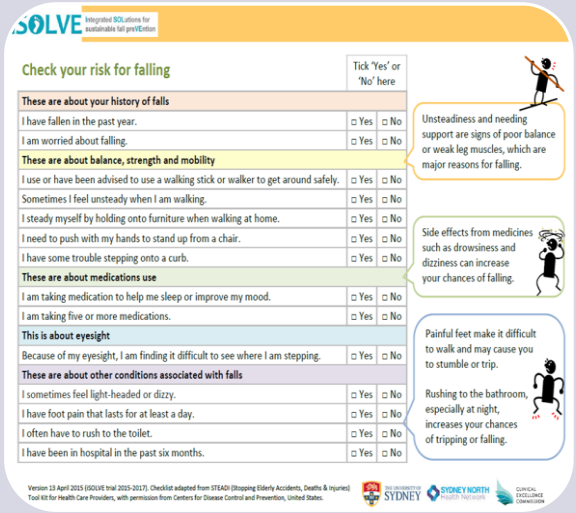
Stay Independent checklist Paper or Tablet

14 questions: fall history, balance/ mobility, medications, vision, dizziness, foot pain, urge incontinence, recent hospital

GP fall risk assessment

Asks fall history and additional risk questions

Paper or GP software



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Check your risk for falling

	Tick 'Yes' or 'No' here
These are about your history of falls	
I have fallen in the past year.	□ Yes □ No
I am worried about falling.	□ Yes □ No
These are about balance, strength and mobility	
I use or have been advised to use a walking stick or walker to get around safely.	□ Yes □ No
Sometimes I feel unsteady when I am walking.	□ Yes □ No
I steady myself by holding onto furniture when walking at home.	□ Yes □ No
I need to push with my hands to stand up from a chair.	□ Yes □ No
I have some trouble stepping onto a curb.	□ Yes □ No
These are about medications use	
I am taking medication to help me sleep or improve my mood.	□ Yes □ No
I am taking five or more medications.	□ Yes □ No
This is about eyesight	
Because of my eyesight, I am finding it difficult to see where I am stepping.	□ Yes □ No
These are about other conditions associated with falls	
I sometimes feel light-headed or dizzy.	□ Yes □ No
I have foot pain that lasts for at least a day.	□ Yes □ No
I often have to rush to the toilet.	□ Yes □ No
I have been in hospital in the past six months.	□ Yes □ No

Unsteadiness and needing support are signs of poor balance or weak leg muscles, which are major reasons for falling.

Side effects from medicines such as drowsiness and dizziness can increase your chances of falling.

Painful feet make it difficult to walk and may cause you to stumble or trip.

Rushing to the bathroom, especially at night, increases your chances of tripping or falling.

Version 13 April 2015 (iSOLVE trial 2015-2017). Checklist adapted from STEADI (Stopping Elderly Accidents, Deaths & Injuries) Tool Kit for Health Care Providers, with permission from Centers for Disease Control and Prevention, United States.

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GP Fall Risk Assessment

This assessment checklist is to be used in conjunction with the patient's Stay Independent checklist.

Patient details/sticker:

Date	Ask the patient about their fall history	
	Have you had any falls in the past year?	□ Yes □ No
	How many?	□ 1 □ 2 or more
	Did you injure yourself?	□ Yes □ No
	What do you think is the cause of the fall(s)?	
	Are you worried about falling?	□ Yes □ No

Date	Risk factors	
	Balance, Strength and Gait	
	Using walking aid or have been advised to use walking aid	□ Yes □ No
	Unsteady	□ Yes □ No
	Weakness, balance and mobility problems	□ Yes □ No
	Medications	
	Sedatives, antidepressants or antipsychotics	□ Yes □ No
	5 or more medications	□ Yes □ No
	Vision	
	Severe impairment (macular degeneration, glaucoma, diabetic retinopathy)	□ Yes □ No
	Cataract formation	□ Yes □ No
	Postural Hypotension, Light-Headedness or Dizziness	
	A decrease in systolic BP ≥20 mm Hg or a diastolic BP of ≥10 mm Hg from lying or sitting to standing?	□ Yes □ No
	Light-headedness or dizziness	□ Yes □ No
	Other Medical Conditions	
	Foot pain	□ Yes □ No
	Urge incontinence	□ Yes □ No
	Recent hospitalisation	□ Yes □ No
	Cognitive impairment	□ Yes □ No

Checklist adapted from STEADI (Stopping Elderly Accidents, Deaths & Injuries) Tool Kit for Health Care Providers, with permission from Centers for Disease Control and Prevention, United States.

Management Plan: Tailoring interventions to fall risk factors

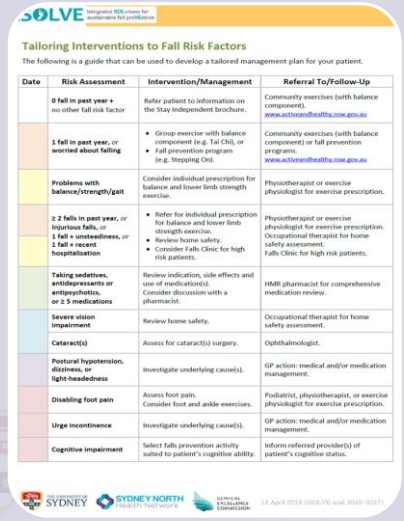
- Evidence-based
- Automatic list of tailored interventions (online)
- GP Fact sheets and Patient Flyers (online)

Referral pathways

Local fall service directory (SNPHN)

Follow up

- Recommendation follow through
- Discuss barriers
- Annual fall risk review



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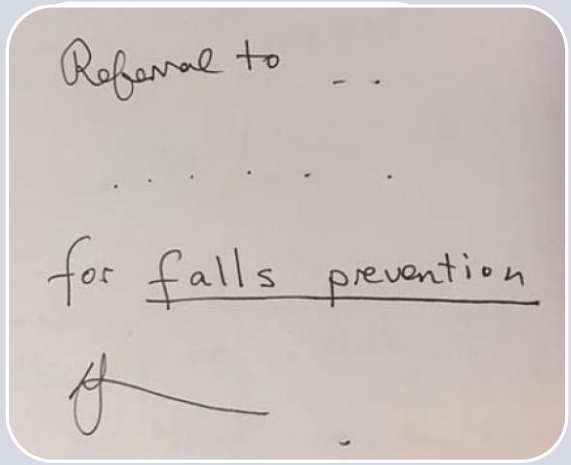
Tailoring Interventions to Fall Risk Factors

The following is a guide that can be used to develop a tailored management plan for your patient.

Date	Risk Assessment	Intervention/Management	Referral To/Follow-Up
	0 fall in past year + no other fall risk factor	Refer patient to information on the Stay Independent brochure.	Community exercises (with balance component). www.activeandhealthy.nsw.gov.au
	1 fall in past year, or **worried about falling**	• Group exercise with balance component (e.g. Tai Chi), or • Fall prevention program (e.g. Stepping On).	Community exercises (with balance component) or fall prevention programs. www.activeandhealthy.nsw.gov.au
	Problems with balance/strength/gait	Consider individual prescription for balance and lower limb strength exercise.	Physiotherapist or exercise physiologist for exercise prescription.
	≥ 2 falls in past year, or **injurious falls,** or **1 fall + unsteadiness,** or **1 fall + recent hospitalisation**	• Refer for individual prescription for balance and lower limb strength exercise. • Review home safety. • Consider Falls Clinic for high risk patients.	Physiotherapist or exercise physiologist for exercise prescription. Occupational therapist for home safety assessment. Falls Clinic for high risk patients.
	Taking sedatives, antidepressants or antipsychotics, or ≥ 5 medications	Review indication, side effects and use of medication(s). Consider discussion with a pharmacist.	HMR pharmacist for comprehensive medication review.
	Severe vision impairment	Review home safety.	Occupational therapist for home safety assessment.
	Cataract(s)	Assess for cataract(s) surgery.	Ophthalmologist.
	Postural hypotension, dizziness, or light-headedness	Investigate underlying cause(s).	GP action: medical and/or medication management.
	Disabling foot pain	Assess foot pain. Consider foot and ankle exercises.	Podiatrist, physiotherapist, or exercise physiologist for exercise prescription.
	Urge incontinence	Investigate underlying cause(s).	GP action: medical and/or medication management.
	Cognitive impairment	Select falls prevention activity suited to patient's cognitive ability.	Inform referred provider(s) of patient's cognitive status.



GP INTERVIEWS: PRELIMINARY FINDINGS

25 GPs, 2 Practice nurses, 1 Practice manager

The 'work' of the intervention in practice

HOW?

- The iSOLVE system to identify and reduce risk
- Paper versus IT
- Training component: 'so you're educating yourself and the patient at the same time'
- Asking the question – the Mantra
- Expands scope of practice

GP INTERVIEWS: PRELIMINARY FINDINGS

The 'work' of the intervention in practice

WHO?

- patients with falls and near-falls
- Wider cohort - patients 65-75 years
- Move from RCT to routine practice

WHAT/CONTENT?

- Clear guidelines for practice nurse
- values iSOLVE "system" and resources. "Loved it"
- Serendipity findings

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GP INTERVIEWS

MOTIVATORS TO TAKE PART

- keep people out of hospital
- Relevant to patient population
- Other GPs in practice doing it
- patient readiness
- about 'real grass roots stuff'
- previous involvement in research

MOTIVATORS FOR NOT TAKING PART

- already have the knowledge and practice falls prevention
- no time for a project/ concerns with pace of work

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GP INTERVIEWS

FACILITATORS TO MAKING THE INTERVENTION ROUTINE IN PRACTICE

- Relevant resources, Clear guidelines
- A quick and easy 'system'
- Within scope of practice
- GP internalises the process "so you get it organised in your head".
- 'nudged' by research project co-ordinator
- Clinical audit a prompt to follow up on patients

BARRIERS TO ROUTINISATION

- IT issues with software
- GPs forgetting what to do over time
- Time/competing priorities
- AHP feedback to GPs ad hoc
- Access to community service
- Preference for existing allied health professionals

GP QUOTES

"I don't think I was managing falls that well before. I mean, I would just attend to the medical thing I could manage, but now I have an awareness that I have to check the eyes, the foot, the management of the home better – all these other aspects that are part of it. So yeah, I'm more comprehensive. Before, I don't think I liked to proactively manage it. I just let falls happen."

"I have a structure to work with – I ask the questions and I know the answers. It's quite easy to follow. I was doing those things – sending patients to physios and OTs and podiatrists – but I think more in terms of fall prevention. I picked up patients because I was thinking actively about who could benefit."

GP INTERVIEWS

REFLECTIONS

- Practice shift from screening to prevention
- Assumptions were challenges
- Making it routine –internalising the process
- iSOLVE as a 'script'
- iSOLVE fall prevention as a "system"
- Paper system worked
- The role of practice staff - GP, PN, receptionist
- More aware of community services, role of AHP

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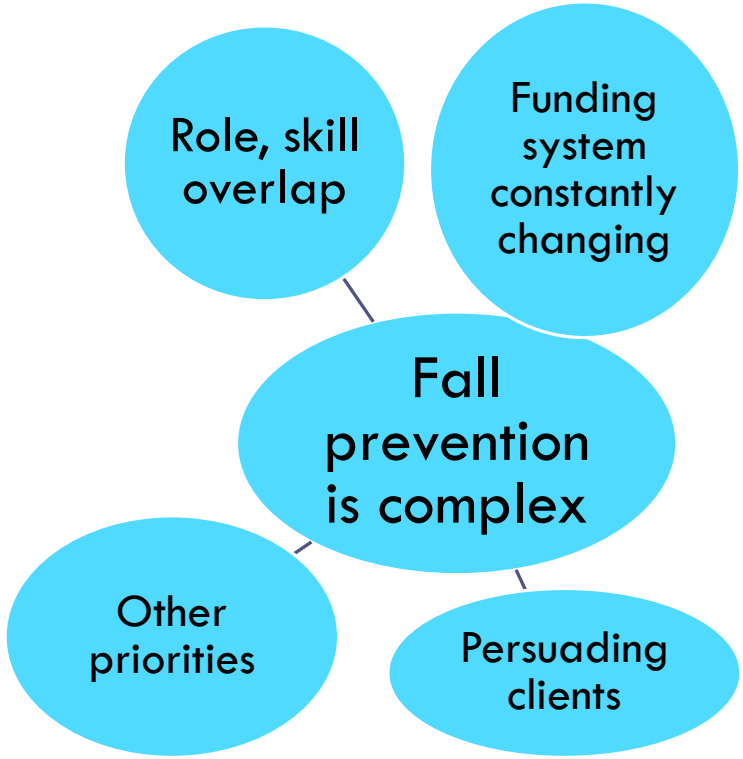
ALLIED HEALTH PROFESSIONAL INTERVIEWS

a glimpse of allied health perceptions following workshops (n=15)



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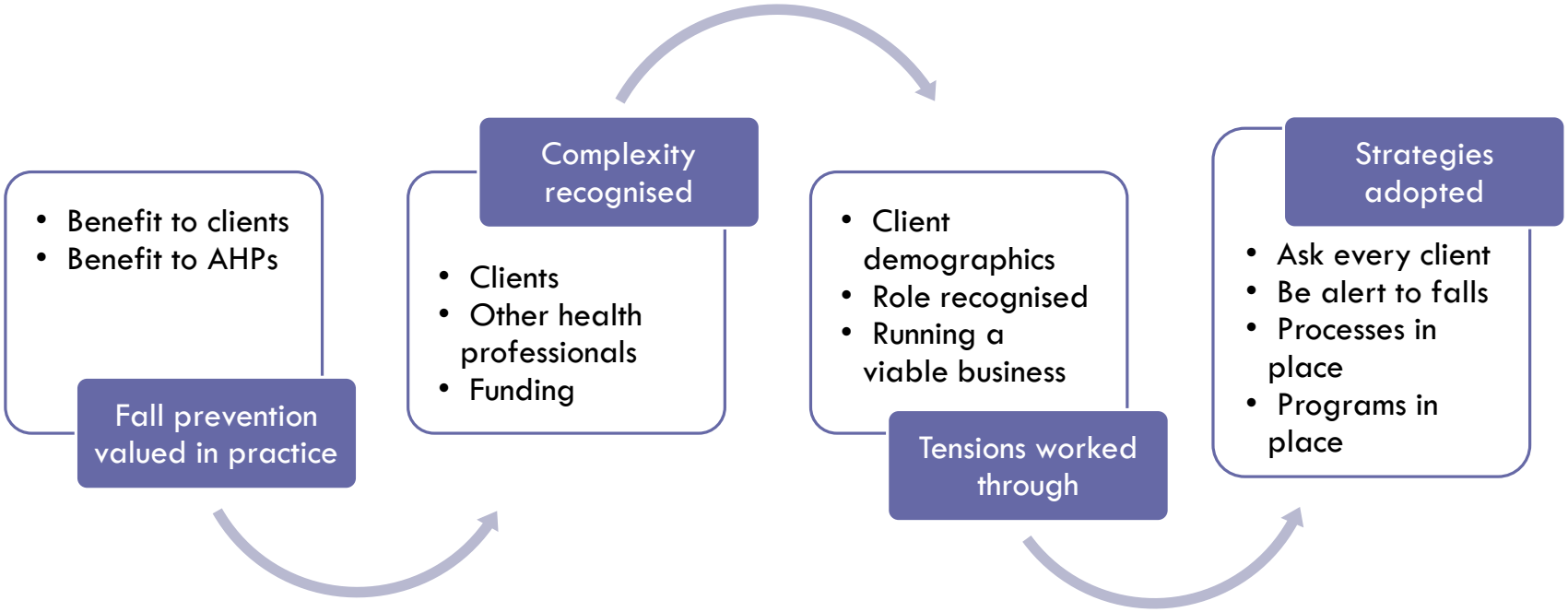
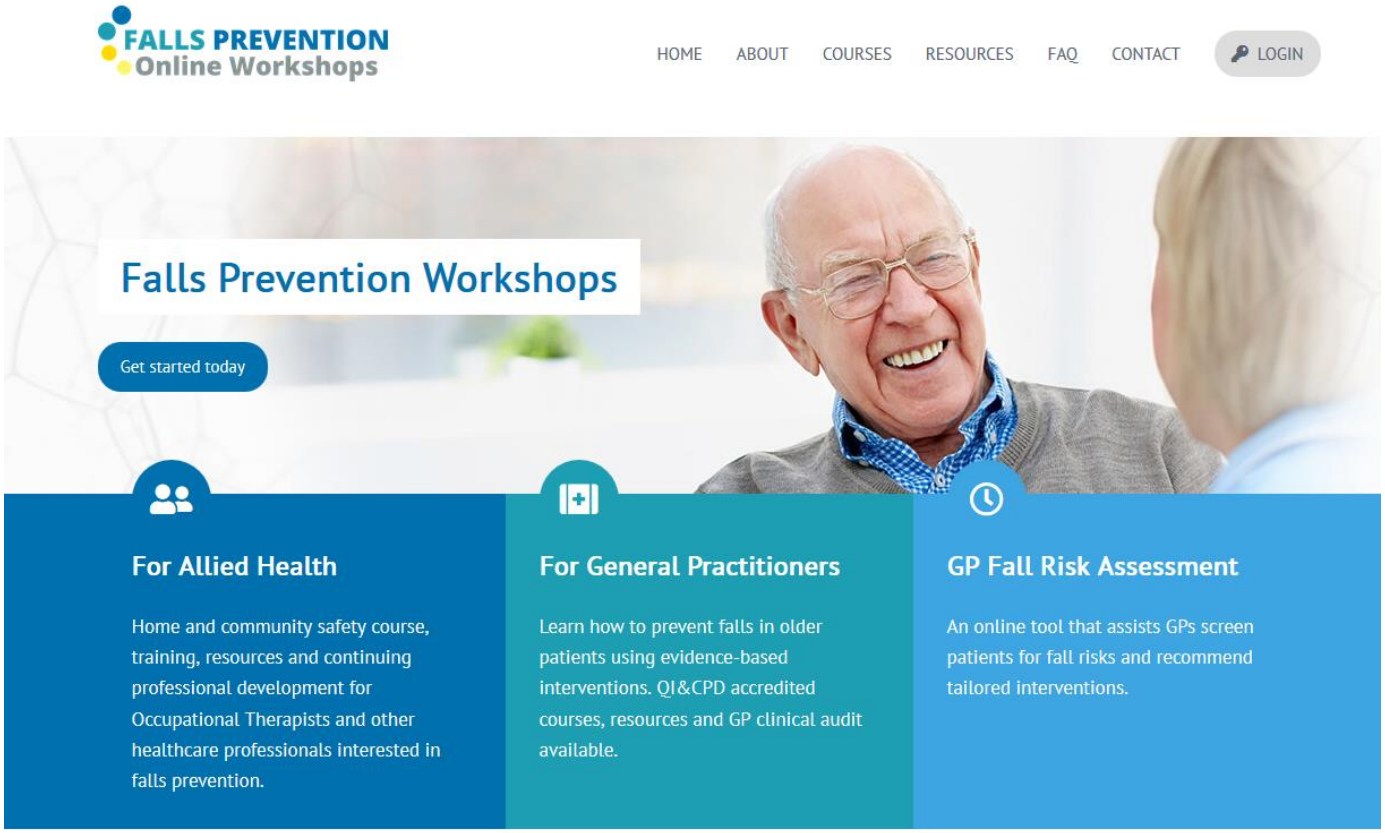
Liddle, Lovarini et al. BMC in press

AHPS INTEGRATING FALL PREVENTION INTO ROUTINE PRACTICE



Liddle, Lovarini et al. BMC in press

ON-LINE MODULES



ISOLVE: NEXT STEPS

Quantitative findings to be analysed

Iterative process –working with partners to see how implement in whole of area- and beyond

ISOLVE built into SNPHN Health Pathways

On-line resources

? Sustainability of AHP and pharmacy training

iSOLVE Working strategies document – to disseminate beyond

Engage other stakeholders – work with ambulance

Expand iSOLVE into other GP software so integral and familiar – pilot with new resources

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LESSONS LEARNT FOR CHANGE IN PRIMARY CARE

- Fit and buy-in
- Might be complex but at some level needs to be simple to work
- Incentives – financial, access to training, support
- Its not the process or the technology but how
- Relationships
- Roles and responsibilities
- A barrier or facilitator depends on context.
- Change needed at practice, behaviour and perception/thinking levels

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