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and social care

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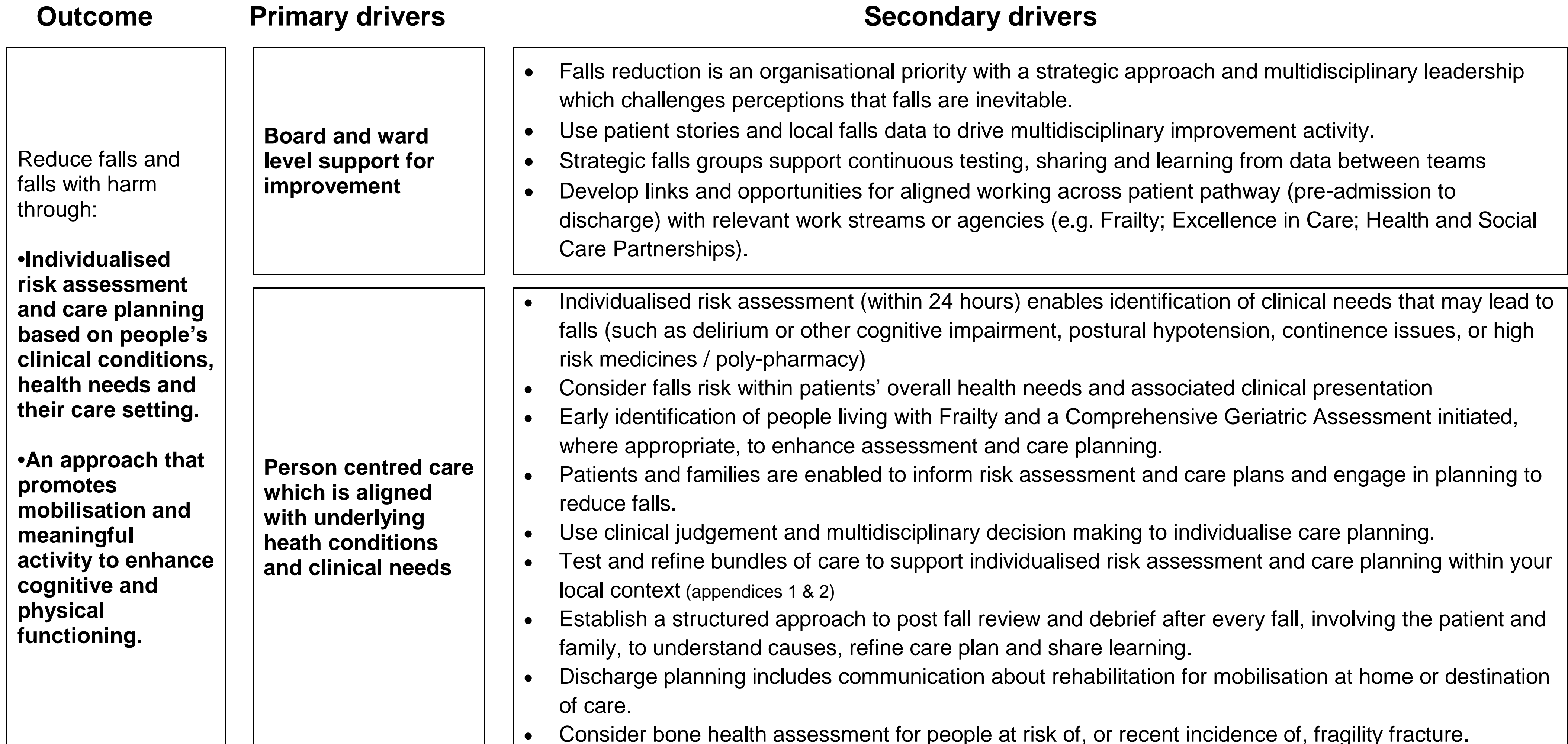
Falls Driver Diagram and Change Package

The Improvement Hub (ihub) is part of Healthcare Improvement Scotland.

As part of Healthcare Improvement Scotland's Improvement Hub (ihub), SPSP activities support the provision of safe, high quality care, whatever the setting.

Falls driver diagram



Outcome	Primary drivers	Secondary drivers
Reduce falls and falls with harm through: **•Individualised risk assessment and care planning based on people's clinical conditions, health needs and their care setting.** **•An approach that promotes mobilisation and meaningful activity to enhance cognitive and physical functioning.**	**Board and ward level support for improvement**	• Falls reduction is an organisational priority with a strategic approach and multidisciplinary leadership which challenges perceptions that falls are inevitable. • Use patient stories and local falls data to drive multidisciplinary improvement activity. • Strategic falls groups support continuous testing, sharing and learning from data between teams • Develop links and opportunities for aligned working across patient pathway (pre-admission to discharge) with relevant work streams or agencies (e.g. Frailty; Excellence in Care; Health and Social Care Partnerships).
	Person centred care which is aligned with underlying heath conditions and clinical needs	• Individualised risk assessment (within 24 hours) enables identification of clinical needs that may lead to falls (such as delirium or other cognitive impairment, postural hypotension, continence issues, or high risk medicines / poly-pharmacy) • Consider falls risk within patients' overall health needs and associated clinical presentation • Early identification of people living with Frailty and a Comprehensive Geriatric Assessment initiated, where appropriate, to enhance assessment and care planning. • Patients and families are enabled to inform risk assessment and care plans and engage in planning to reduce falls. • Use clinical judgement and multidisciplinary decision making to individualise care planning. • Test and refine bundles of care to support individualised risk assessment and care planning within your local context (appendices 1 & 2) • Establish a structured approach to post fall review and debrief after every fall, involving the patient and family, to understand causes, refine care plan and share learning. • Discharge planning includes communication about rehabilitation for mobilisation at home or destination of care. • Consider bone health assessment for people at risk of, or recent incidence of, fragility fracture.

Reduce falls and falls with harm through: **•Individualised risk assessment and care planning based on people's clinical conditions and health needs and their care setting.** **•An approach that promotes mobilisation and meaningful activity to enhance cognitive and physical functioning.**	**Effective team working to maintain a safe environment**	• Structure staff and ward activity to optimise presence and visibility • Base environmental interventions on context specific data about causes of falls. • Consider open or person centred visiting to enable support from family. • Observation practice is carried out by staff who are familiar with ward environment, patients' clinical needs and care plan interventions, and supports meaningful activity.
	Promote mobilisation and meaningful activity	• Communicate assessment of patient mobility support needs in clinical area and at transfer / discharge • Develop multidisciplinary interventions to maximise exercise, meaningful activity and mobility to promote usual routines and maintain physical and cognitive functioning. • Approaches to increase mobilisation with involvement of patients and families are part of ward structure.
	Education and QI support, using data to drive improvement	• Falls champions supporting improvement activity have QI expertise and subject matter knowledge of the causes of falls, including linked conditions such as cognitive impairment or frailty and use this to influence development of individualised care plans. • Education on definitions of a fall and fall with harm, to support reliable and accurate reporting, recording and review of data • Measurement of process reliability focuses on evidence of practice at the bedside, in addition to completion of documentation. • Teams are supported to develop ward / context specific process measures to support learning and development of targeted interventions. • QI methodology is used to promote a questioning culture and understanding of the system to share learning from data, adverse events, and patient stories to stimulate tests of change. • Use of patient stories to educate, motivate and inspire staff. • Flexible approach to education including formal and informal approaches

Change package

	Secondary drivers	Change ideas
Board and ward support	• Use patient stories and local falls data to drive multidisciplinary improvement activity. • Strategic falls groups support continuous testing, sharing and learning from data between teams • Develop links and opportunities for aligned working across patient pathway (pre-admission to discharge) with relevant work streams or agencies (e.g. Frailty; Excellence in Care; HSCPs).	• Process map of patient journey across home/ care settings with associated disciplines / staff identifying roles and opportunities for sharing or transferring assessment information. • Use data which highlights incidence of falls, patients who repeatedly fall, common causes, time of day, and location of falls to stimulate commitment for change and change ideas. • Trial joint community based and hospital falls groups which are aligned with wider related networks and have a QI focus which stimulates learning from data. • Communication of assessment of falls history and interventions across patient pathway. • Assessment and clarification of falls history and risk at or before first point of contact at hospital e.g. emergency department, front door, assessment unit, community setting, and communication of this during any transition within or across service.

	Secondary drivers	Change ideas
Care delivery aligned with clinical needs	• Individualised risk assessment (within 24 hours) enables identification of clinical needs that may lead to falls (such as delirium or other cognitive impairment, postural hypotension, continence issues, or high risk medicines / poly-pharmacy) • Consider falls risk within patients' overall health needs and associated clinical presentation • Early identification of people living with Frailty and a Comprehensive Geriatric Assessment initiated, where appropriate, to enhance assessment and care planning. • Patients and families are enabled to inform risk assessment and care plans and engage in planning to reduce falls. • Use clinical judgement and multidisciplinary decision making to individualise care planning. • Test and refine bundles of care to support individualised risk assessment and care planning within your local context (appendices 1 & 2) • Establish a structured approach to post fall review and debrief after every fall, involving the patient and family, to understand causes, refine care plan and share learning. • Discharge planning includes communication about rehabilitation for mobilisation at home or destination of care. • Consider bone health assessment for people at risk of, or recent incidence of, fragility fracture.	• Consider regular re-assessment after 24 hours to enable recognition of change in underlying health needs, e.g. hypoactive delirium. • Obtain service user and family perspective about mobility, falls risk, and conditions or activities that affect these. • Recognition of the underlying causes of clinical needs will initiate an early response and individualised management plan to minimise their occurrence and/or impact on potential for patient deterioration and falls. • Individualised care interventions for falls are aligned with wider health and wellbeing interventions to promote cognitive and physical health (e.g. to reduce risk of delirium) and should consider adequate hydration, nutrition, meaningful activity and safe use of medicines, as part of a well-co-ordinated, integrated approach to care planning. • Individualised approach to care and comfort rounds with more frequent intervention for patients who are unable to communicate their needs e.g. for those requiring additional support around hydration or continence care, or to access mobility aids. • Teams carry out analysis of falls e.g. by time of day, location, patient's condition, severity and harm to support development of interventions. • Information for patients on self-management activity to reduce falls and enhance safety, for example, via a patient safety leaflet with information about appropriate footwear, hydration and mobility. • Post fall review, and staff and patient debrief could include: post fall huddle with multi-disciplinary team; visual cue on patients' notes to indicate review of cause of fall, poly-pharmacy and / or review of medicines, incident reporting and update of care plan. • Use of virtual ward or other method of coordinating and facilitating communication between hospital and HSCP teams to support discharge planning. • Develop approaches to promote restful sleeping pattern, e.g. use of non-caffeinated drinks at night. • Consider use of Q-fracture assessment to highlight and communicate risk of fracture and associated needs.

	Secondary drivers	Change ideas
Team working	• Structure staff and ward activity to optimise presence and visibility. • Base environmental interventions on context specific data about causes of falls. • Consider open or person centred visiting to enable support from family. • Observation practice is carried out by staff who are familiar with ward environment, patients' clinical needs and care plan interventions and supports meaningful activity.	• Consideration is given to timing of activities, such as staff breaks, medicine rounds, personal care, to optimize staffing levels and visibility. • Environmental multidisciplinary walk rounds, inclusive of patient or family member, to develop awareness about potential causes of falls and to test ideas that may reduce falls e.g. changing layout of patients' rooms, speed of door closures, increased lighting overnight, decrease clutter around bed area • Patients who have fallen, or identified as being at risk of falls, and their care plan, are clearly communicated to all staff members e.g. during handover, huddle, and highlighted on patient safety at a glance boards.

	Secondary drivers	Change ideas
Mobilisation and activity	• Communicate assessment of patients' mobility support needs in clinical area and at transfer / discharge • Develop multidisciplinary interventions to maximise exercise, meaningful activity and mobility to promote usual routines and maintain physical and cognitive functioning. • Approaches to increase mobilisation with involvement of patients and families are part of ward structure	• Development of opportunities for meaningful activities for individual or groups of patients, and dedicated space for this to be facilitated. • Use of bed-rail decision tools and associated information & leaflets provided to patients and families. • Patients who need support with mobility their care plan are clearly identified and communicated to all staff members e.g. during handover, huddle, safety brief. • Visual cues, e.g. wrist bands, patient safety at a glance boards, posters in spaces associated with falls are used to prompt staff and patients on the need for support with mobilisation. • A ward mobility protocol is developed to encourage opportunities to engage patients and families in activity and movement – such as having meals at dining area rather than in bed. • Creation of walking aid store to ensure access to walking aids available out of hours. • Staff education and training in measuring lying and standing blood pressure and using this to guide mobilisation. • Strength and balance exercises, or a mobility plan based on goal setting, are "prescribed" as part of personalised care plan • Staff trained in strength and balance exercises and how to support patients to use these – e.g. during intentional rounding / care and comfort rounds, with HSCW role to support this. • During care and comfort rounds checks are made to ensure a safe environment and minimise trip hazards, • Patients are encouraged to wear their own clothes and suitable footwear where possible to promote dignity whilst mobilising. • Referral to exercise programmes in community settings and information given to patients on how to access these.

	Secondary drivers	Change ideas
Education and QI support	• Falls champions supporting improvement activity have QI expertise and subject matter knowledge of the causes of falls, including linked conditions such as cognitive impairment and frailty and use this to influence the development of individualised care plans. • Education on definitions of a fall and fall with harm, to support reliable and accurate reporting, recording and review of data • Measurement of process reliability focuses on evidence of practice at the bedside, in addition to completion of documentation. • Teams are supported to develop ward / context specific process measures to support learning and development of targeted interventions. • QI methodology is used to promote a questioning culture and understanding of the system to share learning from data, adverse events, and patient stories to stimulate tests of change. • Use of patient stories to educate, motivate and inspire staff. • Flexible approach to education including formal and informal approaches	• Use of improvement tools such as task analysis, process mapping, pareto analysis, staff and patient experience to help understand your system and generate change ideas • Promote and display data in an accessible manner such as on safety cross, measles chart, run chart, on process and outcome measures. • Teams carry out analysis of falls e.g. by time of day, location, patient's condition, severity and harm to support development of interventions. • Scoping of education approaches to suit context, e.g. e-learning, real time coaching. • Education that supports staff to engage with patients and families in discussion about falls. • Education about purpose and procedure for lying and standing blood pressure – based on development of a standard operating procedure for lying and standing BP. • Education sessions include the impact of falls reduction and improving mobility on: – Reducing muscle loss and supporting bone health – Reducing pressure ulcer risk – Encouraging nutrition and hydration – Improving bowel and bladder function – Improving cognitive and physical function and wellbeing – Sustaining functioning post discharge / at home • Coaching and education can include, for example: post fall review of patient notes; using data to influence learning; tests of change and promoting person centred care based on clinical judgement. • Development of process measure to determine evidence of care plan interventions at the bedside. • "Success reviews" that share learning about factors that contributed to prevention of a patient fall, or reduction in falls in people who have frequent falls incidence.

Appendix 1 Falls Care Bundles

This section includes the existing falls care bundles which have been in use since 2013. Boards are increasingly using the falls bundles and process measures flexibly, refining them to fit with local context and specific clinical, patient and environment needs and data reporting – see appendix 2 for examples of this.

Falls bundle for all patients (completed within 24 hours)

- Complete and document the screen for more vulnerable patients (5Qs) ***(If answers 'yes' to any of the five questions below, the patient is identified as 'more vulnerable'***.
  1. *Has the patient fallen in the last 6 months – including during this admission?*
  2. *Does that patient have cognitive impairment (for example AMT<8 or 4AT>1) or possible delirium (for example 4AT or above)?*
  3. *Does the patient attempt to walk alone although unsteady or unsafe?*
  4. *Does the patient or their relative/s have fear or anxiety regarding falling?*
  5. *Based on your clinical judgement, is this patient at high risk of falling?*
- On admission immediate documented assessment of mobility.
- Provision of walking aid as required and is within reach.
- Call bell in reach and working.
- Appropriate footwear available and in use.
- If glasses and hearing aid are worn, they are available and in use.

Safety bundle for more vulnerable patients (and all patients in care of older peoples' wards)

- Communicate mobility status for walking and transfers (safety brief).
- Chair and bed consistently at best height for individual, to enable safe transfers.
- Identify patients with cognitive impairment and/or with poor mobility and known not to ask for assistance, and provide close observation whilst using commode, toilet, in bath or shower.
- For patients known to take risks with mobility, clearly document intensity of observation require, for example positioning of bed; cohorting of at risk patients; 1:1 observations; care and comfort rounds.
- Assess for bed rails using a decision making tool/ algorithm and use if indicated.

Multi-disciplinary assessment and intervention bundle for more vulnerable patients and all patients in care older peoples' wards – it should be noted that the first four measures of this bundle parallel the Comprehensive Geriatric Assessment (CGA) which is already being tested in some boards.

- A documented cognitive assessment and delirium screen, with findings recorded and action plan initiated.
- A documented assessment of continence problems, with findings and management plan recorded.
- A documented assessment of postural hypotension and arrhythmias, with management plan recorded.
- A documented medication review for medication that can increase the risk of falls, with management plan recorded.
- Multi-disciplinary review of further falls risk factors†, with management plan recorded.

† In addition to the first four bundle components, this includes a falls history (including causes and consequences such as injury and fear of falling), health problems that may increase their risk of falling, postural instability, mobility problems and/or balance problems, syncope syndrome, visual impairment and assessment of fracture/osteoporosis risk.

Post-fall bundle

- Assess for signs and symptoms of fracture or potential spinal injury before the patient is moved.
- Safe manual handing methods for patients with signs and symptoms of fracture or potential for spinal injury.
- Frequency and duration of neurological observations for all patients where head injury has occurred or cannot be excluded (for example un-witnessed falls) based on guidance.
- Adhere to agreed timescales for medical examination following a fall or high vulnerability to injury, or who have been immobilised.
- Conduct a post-fall review/rapid root cause analysis (to learn how further falls can be prevented for the patient and annotate during report of incident for wider learning).

Please note that the post falls bundle is based on the NPSA Rapid Response Report 'Essential care after an inpatient fall'.

Appendix 2 This section brings together elements of the revised driver diagram and existing bundles that have been refined, tested and adapted in some boards. The checklist below is for information and could be tested alongside the change ideas in the refreshed driver diagram.

Additional resources can be found at https://ihub.scot/spsp/acute-adult/falls/

Falls care interventions –post risk-assessment

- On admission immediate documented assessment of mobility.
- Provision of walking aid as required and is within reach.
- Call bell in reach and working, checking patient can use this and consider alternatives where required.
- Condition of feet assessed and appropriate footwear available and in use.
- Glasses and hearing aid in use, if worn.
- Lying and standing blood pressure recorded, with concerns communicated and action planned
- Communication and review of medication and/ or poly-pharmacy where this may contribute to falls risk
- Consideration of bowel and bladder issues – retention and constipation can lead to urgent, frequent need to mobilise.
- Individualised interventions to reduce incidence of, or address existing, clinical conditions –e.g. delirium, and to promote activity and mobility

Post fall review, after every fall, could include:

- Staff and patient debrief & post fall huddle with multi-disciplinary team to understand causes of the fall, review the individualised care plan, and understand impact of the fall on patient and staff.
- Review of medicines e.g. with pharmacy, non- medical and medical prescribers.
- Datix completion and review
- Change and / or update of individualised care plan.
- Visual cues to alert to incidence of falls and review of falls- to support sharing of information where the patient is transferred to other wards or areas within the hospital, setting, or wider service.
- Sharing of learning points within the team / wider hospital when harm and /or a near miss has occurred; or where falls have been reduced.