QUALITY IMPROVEMENT · QC STORY (PDCA)

1 2 3 4 5
6 7 8 9 10

Step by step: halving inpatient falls on an older-adult acute medical ward

Ward 7B falls rate fell from 10.0 to 4.5 per 1,000 occupied bed days in nine months

SafeSteps Circle · Ward 7B, Acute Medicine for Older People
Riverside General Hospital · Project period June 2025 – April 2026

Sample — fictional data. Riverside General Hospital, Ward 7B, the SafeSteps Circle and all figures are invented for portfolio purposes.

PROJECT AT A GLANCE

A 10-step QC Story delivered a 54.5% reduction in the falls rate

10.0 → 4.5

falls per 1,000 occupied bed days

9 → 2

falls with harm (6-month periods)

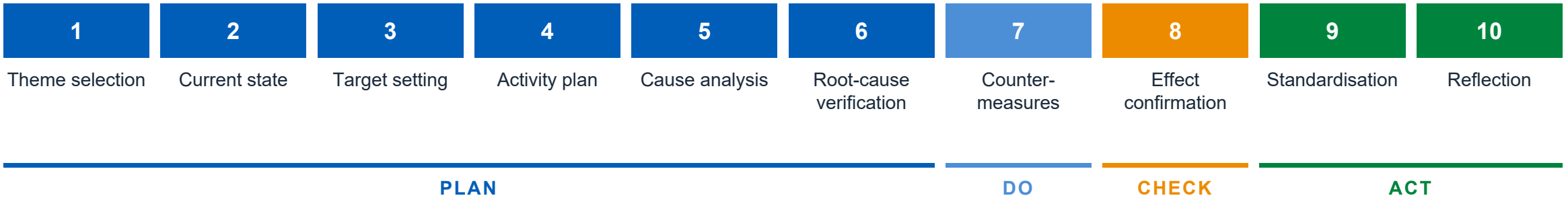
109%

target attainment (aim ≤5.0)

Team: 8 members — ward sister (leader), 3 staff nurses, 2 healthcare assistants, physiotherapist, pharmacist; supported by a QI facilitator

Scope: 28-bed ward; all adult inpatients

QC Story roadmap



Target attainment = (baseline − result) / (baseline − target) = (10.0 − 4.55) / (10.0 − 5.0). Figures are fictional.

Falls scored highest of five candidate themes on harm, frequency and feasibility

Candidate theme	Patient harm	Frequency	Within our control	Hospital priority	Total	Rank
Inpatient falls	**5**	**5**	**4**	**5**	**19**	**1**
Pressure injuries	4	3	4	4	15	2
Medication administration errors	5	3	2	4	14	3
Hand hygiene compliance	3	3	5	3	14	3
Discharges before 11:00	2	4	2	3	11	5

Scoring: 5 = high, 3 = medium, 1 = low; consensus score of 8 circle members.

Why falls?

46 falls in Jan–Jun 2025, 9 of them with harm (19.6%)

Highest-volume incident category on the ward

Patients and families raised falls in 3 of 11 complaints (fictional)

Pressure injuries ranked second and are proposed as the next theme (Step 10).

Baseline: 46 falls in six months — 10.0 per 1,000 occupied bed days

Month	Jan 25	Feb 25	Mar 25	Apr 25	May 25	Jun 25	Total
Falls (n)	9	8	7	8	7	7	46
Occupied bed days	780	712	781	760	785	782	4,600
Rate per 1,000 OBD	**11.5**	**11.2**	**9.0**	**10.5**	**8.9**	**9.0**	**10.0**

9 / 46

falls with harm (19.6%) — 2 fractures, 7 minor injuries

22 / 46

falls between 00:00 and 08:00 (47.8%)

82.6%

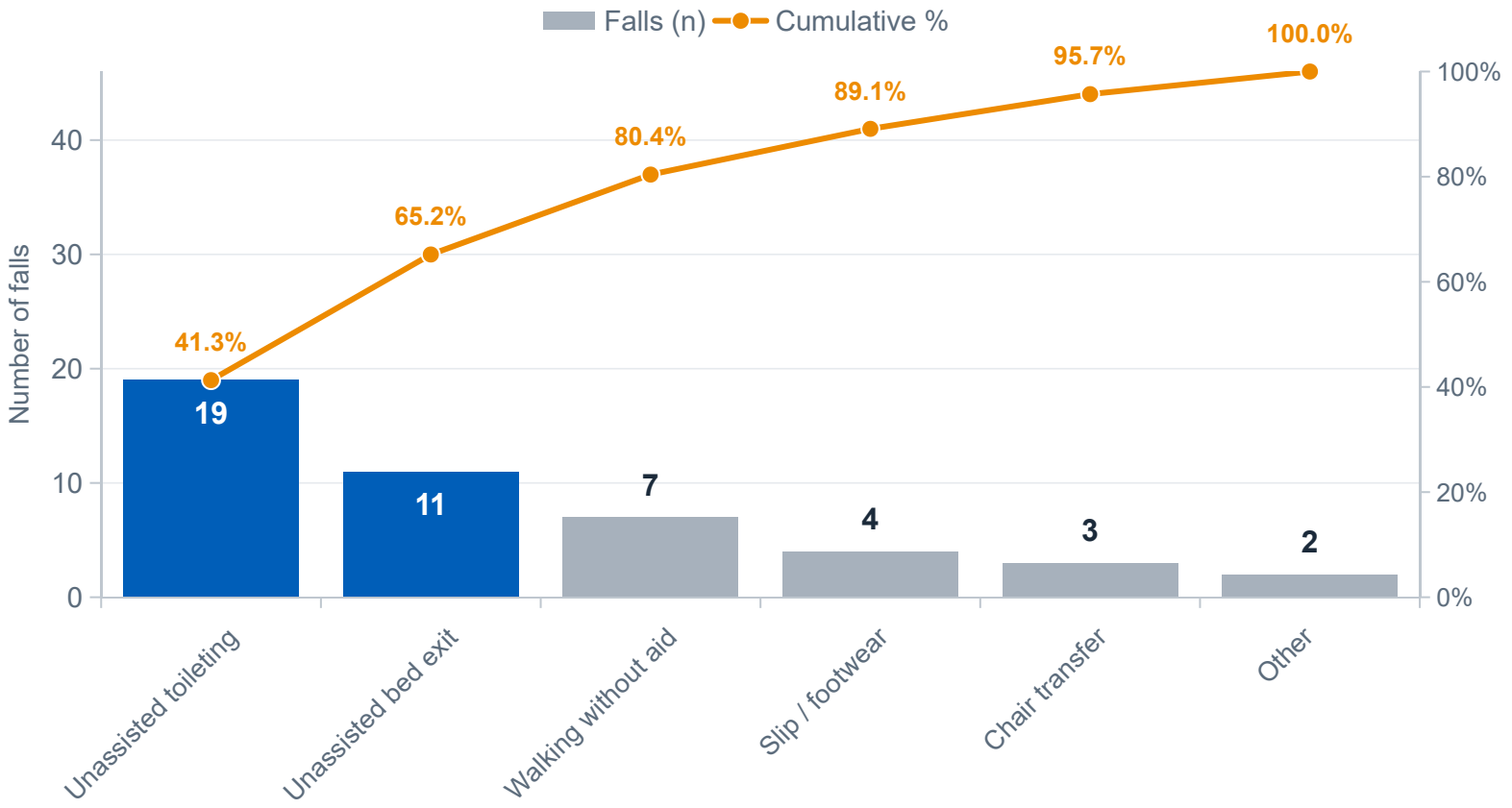
of fallers were ≥75 years old (38 / 46)

4

bed-exit sensors available for a 28-bed ward

Source: ward incident reporting system and bed-management data, Jan–Jun 2025 (fictional). OBD, occupied bed days. 2 + 7 = 9 falls with harm.

Two fall types — toileting and bed exit — account for 65.2% of falls



Reading the Pareto

Unassisted toileting: **19** (41.3%)

Unassisted bed exit: **11** (23.9%)

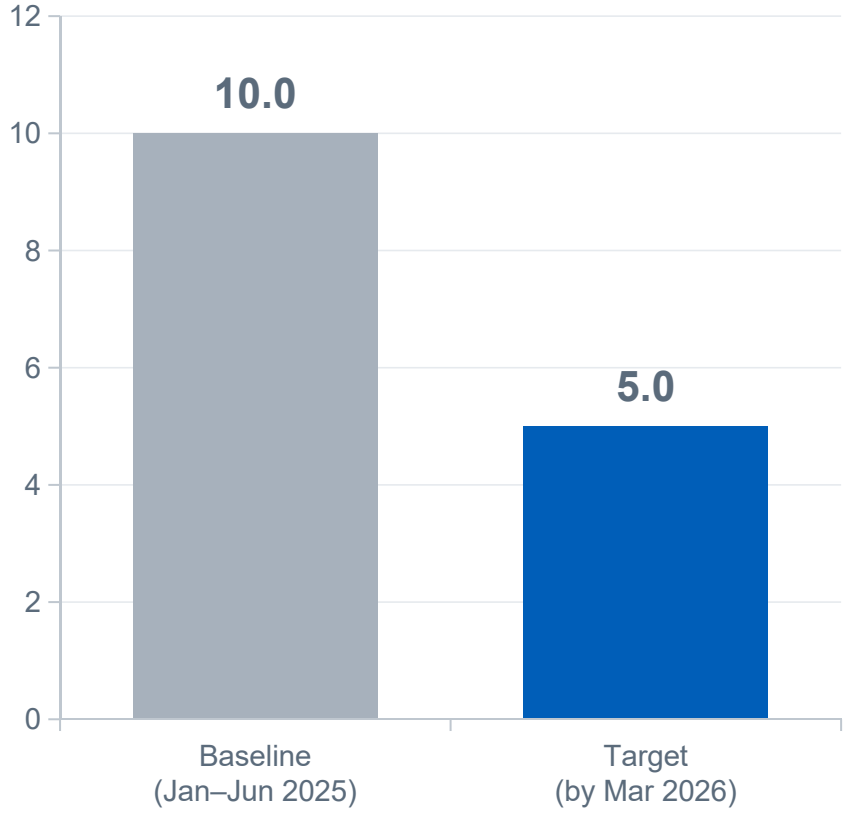
Together: **30 of 46** falls

Focus problem

Falls while getting out of bed or going to the toilet without help

Primary axis: number of falls (bars, n=46); secondary axis: cumulative percentage (line). Fall type as recorded in the incident report.

Aim: reduce falls to ≤5.0 per 1,000 occupied bed days by 31 March 2026



How the target was set

10.0	×	(1 −	65.2%	×	80%	)	=	4.8
Baseline rate			Focus share (Pareto)		Expected resolution*			Calculated target

SMART aim

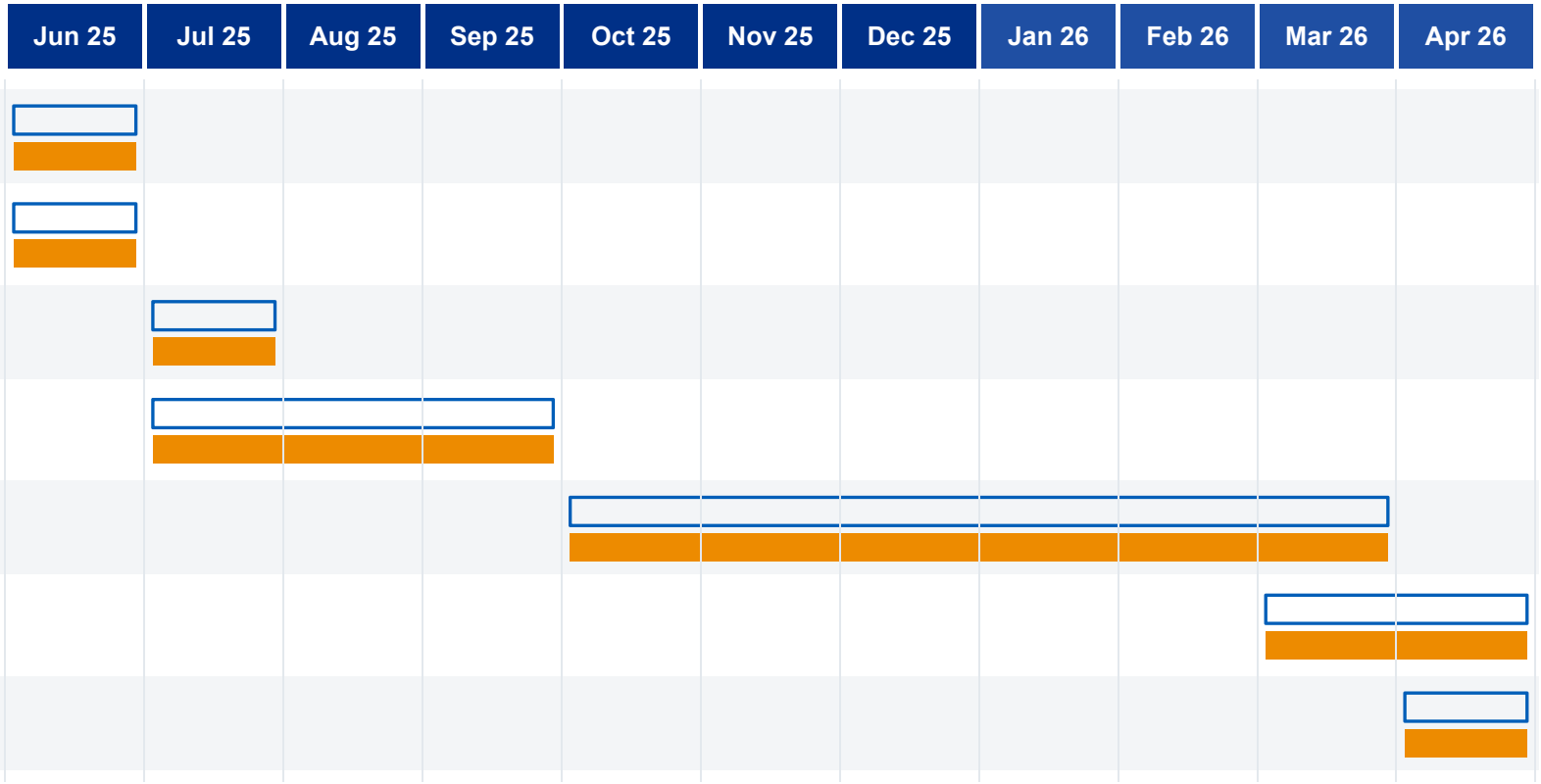
Reduce inpatient falls on Ward 7B from 10.0 to ≤5.0 per 1,000 occupied bed days (a 50% reduction) by 31 March 2026, with no increase in physical restraint use.

Rounded up to 5.0 to give a clear, memorable aim.

*Expected resolution rate: the share of focus-problem falls the team judged it could prevent (team consensus, based on the circle's capability and resources).

Activity plan: 11 months from theme selection to standardisation

Step	Lead
1–3 Theme, current state, target	Ward sister
4 Activity plan	Facilitator
5–6 Cause analysis & verification	Staff nurses
7 Countermeasures (PDSA 1–3)	Whole team
8 Effect confirmation	Facilitator
9 Standardisation	Ward sister
10 Reflection & next theme	Whole team

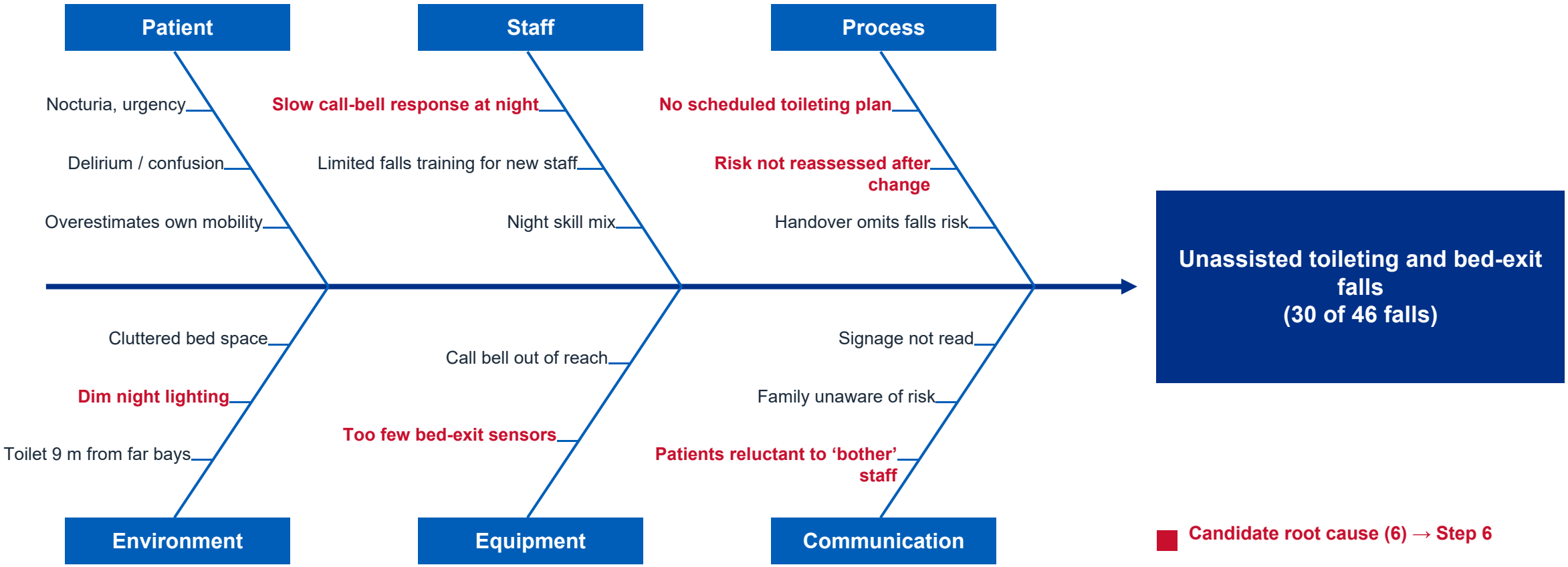


Planned Actual

Circle meets weekly for 30 minutes; monthly report to the Nursing Quality Committee.

Planned vs actual dates; all steps ran to plan (fictional). PDSA, Plan–Do–Study–Act.

Cause-and-effect analysis identified 17 possible causes in six categories

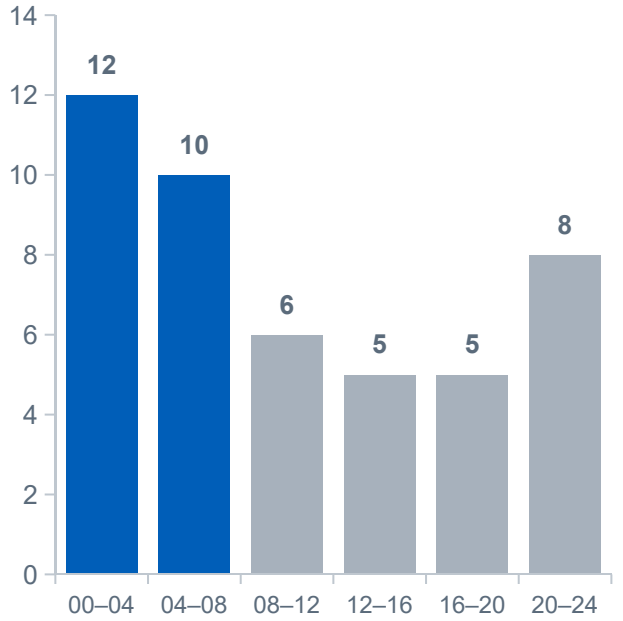


Brainstorm with all 8 members plus 2 patient representatives, July 2025. Candidate root causes were selected by multi-voting.

Data confirmed four of six candidate root causes

Candidate root cause	How we checked	Evidence	Verdict
No scheduled toileting plan	Review of 19 toileting falls	17 / 19 (89.5%) had no documented plan	Confirmed
Slow call-bell response at night	40 timed night-time calls	18 / 40 (45.0%) answered in >3 min; median 4.2 min	Confirmed
Risk not reassessed after change	Audit of 25 patient records	14 / 25 (56.0%) not reassessed within 24 h	Confirmed
Too few bed-exit sensors	Equipment count vs risk list	4 sensors for ~11 high-risk patients/day; 9 / 11 bed-exit fallers had none	Confirmed
Dim night lighting	Lux check of 28 bed spaces	26 / 28 (92.9%) met standard; 1 / 30 focus falls near a faulty light	Not confirmed
Patients reluctant to ‘bother’ staff	Interviews with 12 patients	3 / 12 (25.0%) said so; not linked to falls in incident reports	Not confirmed

Falls by time of day (n=46)



22 of 46 falls (47.8%) occurred 00:00–08:00, when call-bell delays were longest

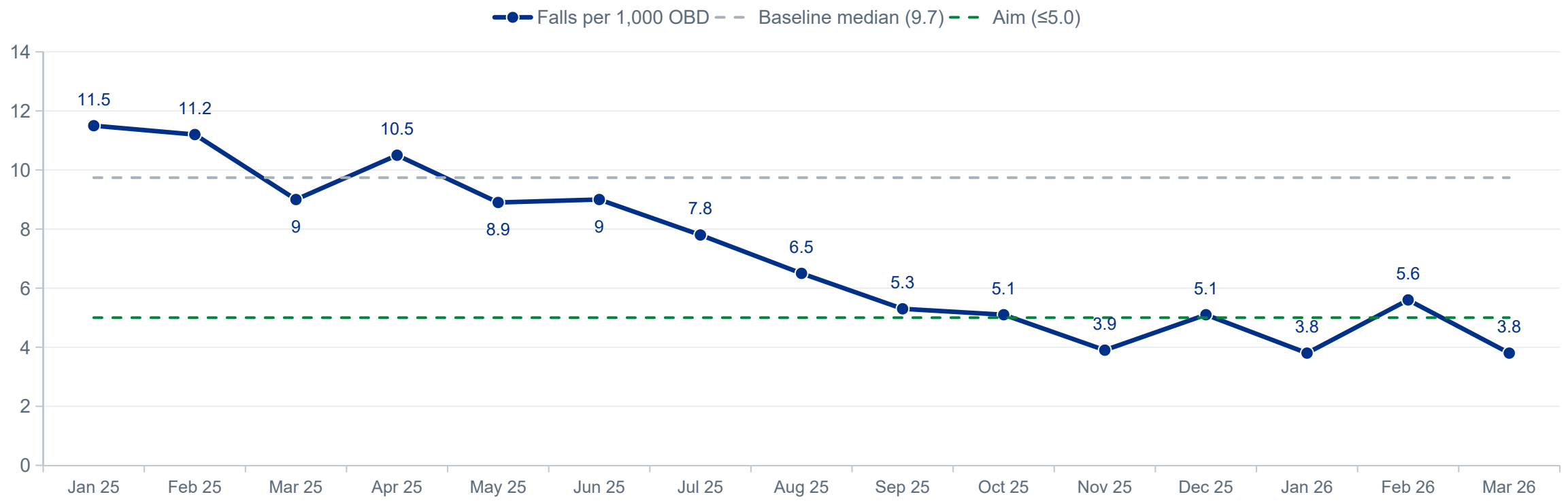
Verification period July 2025. Root causes confirmed when supported by local data and plausibly linked to the focus falls.

Five countermeasures, each tested in small PDSA cycles before full roll-out

#	Countermeasure (what / how)	Root cause	Lead	When	PDSA result
1	Hourly intentional rounding 22:00–06:00 for high-risk patients (pain, position, personal needs, possessions)	Toileting plan; call bell	Night charge nurse	Jul–Aug 25	Adapted → adopted
2	Individual toileting schedule agreed on admission for patients at risk with continence needs	Toileting plan	Senior HCA	Aug 25	Adopted
3	Falls risk reassessment trigger in the e-record: after a fall, transfer, new sedative or change in condition	Reassessment	Practice educator	Aug–Sep 25	Adapted → adopted
4	Bed-exit sensors increased from 4 to 10; allocated by risk score at every handover	Sensors	Ward sister	Sep 25	Adopted
5	‘Call, don’t fall’ bedside card and 2-minute family briefing on admission	Call bell	Staff nurse	Jul 25	Adopted

Quick win (not a root cause): non-slip socks stocked on the ward from July 2025. HCA, healthcare assistant; PDSA, Plan–Do–Study–Act.

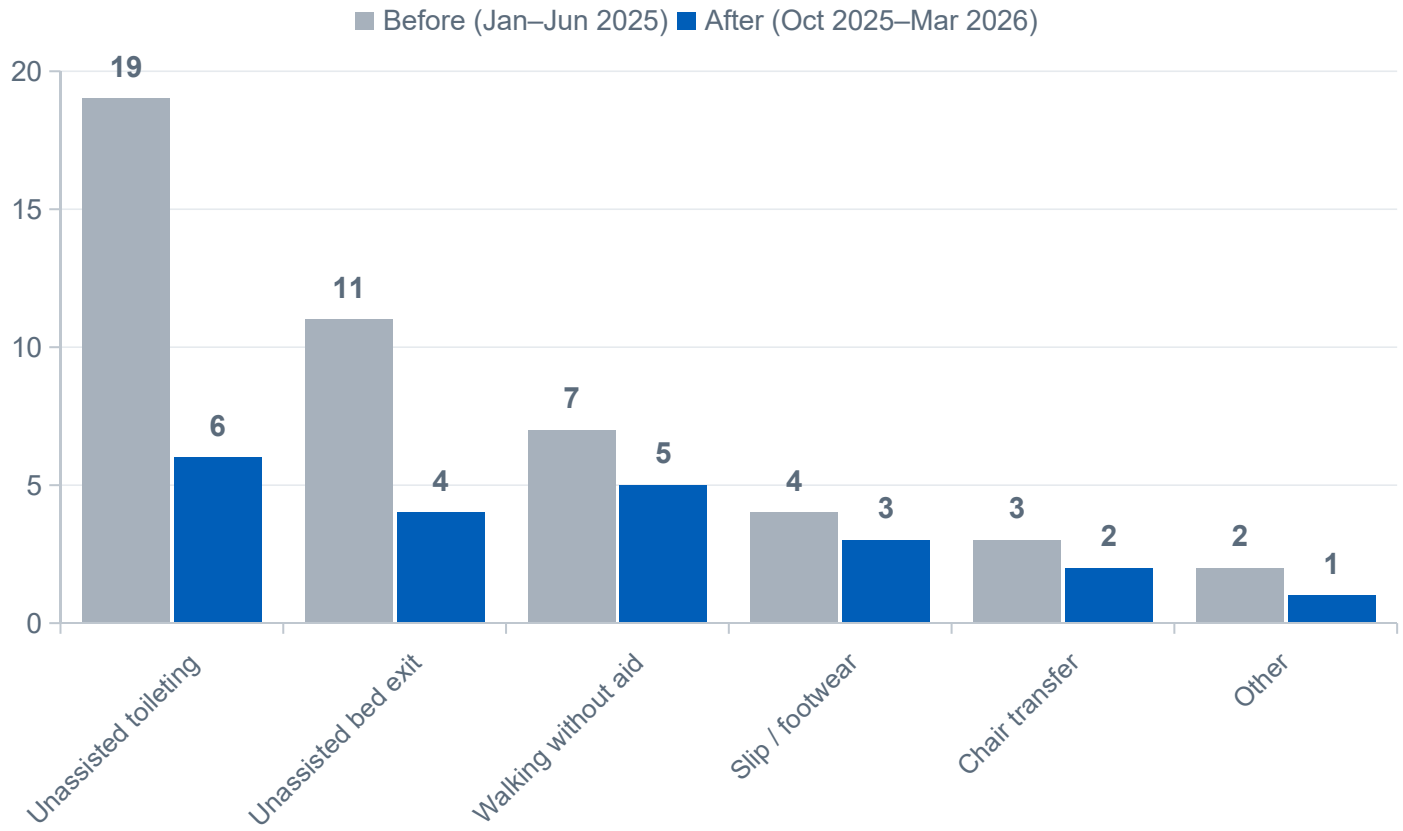
Run chart: a sustained shift below the baseline median from July 2025



Changes tested: PDSA 1 (Jul) rounding + ‘Call, don’t fall’ cards · PDSA 2 (Aug) toileting plans + reassessment trigger · PDSA 3 (Sep) 10 bed-exit sensors

Run-chart rule: ≥6 consecutive points below the median = shift (9 points, Jul 2025–Mar 2026). Monthly rate = falls ÷ occupied bed days × 1,000.

After: falls fell 54.3% and the two focus fall types fell 66.7%

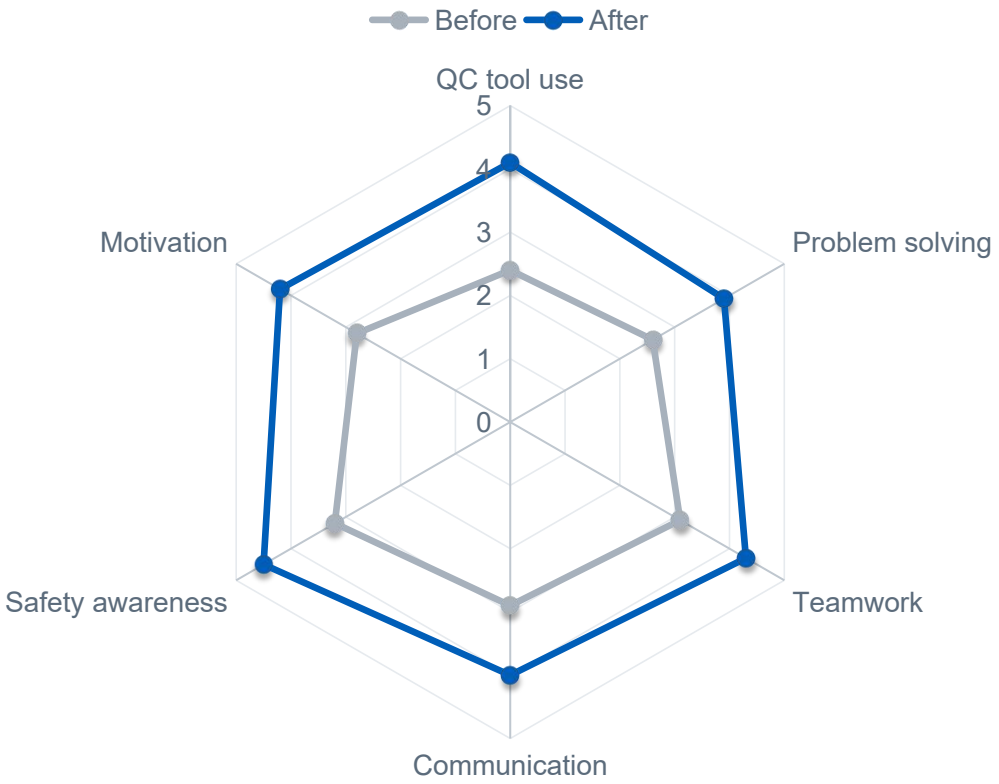


Measure	Before	After	Change
Falls (n)	46	21	−54.3%
Occupied bed days	4,600	4,620	—
Falls per 1,000 OBD	10.0	4.5	−54.5%
Toileting + bed-exit falls	30	10	−66.7%
Falls with harm	9	2	−77.8%

Aim met: 4.5 vs target ≤5.0
Target attainment 109%

Both periods are 6 months with similar occupied bed days, so counts and rates are directly comparable.

Team capability grew, and balancing measures showed no unintended harm



Self-rated by 8 members, 1 (low) – 5 (high), mean scores

Balancing measures

Measure	Before	After
Physical restraint episodes	0	0
Night call-bell response, median	4.2 min	1.8 min
Nurse-rated workload (1–5)	3.4	3.5
Rounding chart completion	—	93.5%

Faster call-bell response followed rounding: staff now anticipate needs instead of reacting to calls.

Call-bell response: 40 timed night-time calls in each period. Rounding completion: 1,240 of 1,326 scheduled checks documented, Oct 2025–Mar 2026.

Standardisation: new practice is written into SOPs, records and induction

What changed	Standard (5W1H)	Owner	Monitoring
Intentional rounding	SOP ‘Falls prevention on Ward 7B’ v2.0, approved Mar 2026; rounding chart in nursing record	Ward sister	Monthly audit of 10 charts; target ≥90%
Toileting schedules	Admission checklist item for patients at risk with continence needs	Senior HCA	Weekly spot-check at safety huddle
Reassessment trigger	E-record prompt live hospital-wide from Apr 2026	Practice educator	Quarterly report from IT
Bed-exit sensors	Allocation by risk score added to handover sheet; 10 units on ward asset list	Night charge nurse	Daily at handover
Education	Falls module in new-starter induction; annual refresher	Practice educator	Training compliance ≥95%

Control: falls rate stays on the ward safety dashboard; any 2 consecutive months above 5.0 trigger a circle review

SOP, standard operating procedure; 5W1H, what, why, where, when, who, how.

Reflection: what we learned and where we go next

What went well

- Pareto focus kept the team on the two fall types that mattered
- Small PDSA tests won over night staff before roll-out
- Patients and families joined the cause analysis

What we would do differently

- Start balancing measures from day one
- Involve IT earlier — the e-record prompt took 6 weeks
- Plan for night-shift turnover in training

Next steps

- Spread the bundle to Wards 6A and 8C (Q2 2026)
- Next theme: pressure injuries (ranked 2nd in Step 1)
- Share the method at the hospital QI forum

Fictional case prepared to show QC Story structure; it does not describe a real ward or real patients.