

Falls in Residential Aged Care Facilities

Statistical report for the research team

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The research team

- **Principal investigators**
 - Dr John Ward - HNEAHS
 - Prof Julie Byles - University of Newcastle
- **Project Statistician**
 - Richard Gibson
- **Project Officer**
 - Mandy Harden
- **Advisory Committee**
 - Key stake holder representatives

Topics

1. Randomisation into intervention and control
2. The Facilities at the beginning of the project
3. Monthly data collection
4. The census
5. Following the cohort



The Facilities and Randomisation

- 98 facilities, 6 too small, 4 declined
→ 88 for randomisation
- Balance rural and urban
- Balance bed numbers
- Balance bed types

Combinations	Total number of facilities	Total in intervention
High care + dementia specific	25	13
High and low care only	10	5
High and low care + dementia specific	11	6
Low care + dementia specific	19	10
Low care only	23	12
Total	88	46

The Facilities – Bed numbers

Bed Category	No facilities not in category		Median number of beds (excluding zero)		Minimum beds		Maximum beds	
	I	C	I	C	I	C	I	C
Intervention = I or Control	I	C	I	C	I	C	I	C
High care General	22	20	49.5	46	20	10	136	120
High care + Dementia specific	40	33	25.5	15	15	8	30	96
Low care General	13	13	39	38	10	7	78	80
Low care + Dementia specific	31	29	20	15	6	1	57	65

What Facilities did at the beginning of the project: Falls risk assessment and documentation

Facility type	Falls risk assessment on admission %		Ongoing falls risk assessment %		Frequent faller's assessment form %		Specific falls incident form %	
	I	C	I	C	I	C	I	C
Low care only	77	80	82	85	18	5	9	10
High care only	77	73	69	91	0	18	0	55
Mixed low and high care	91	73	73	91	9	0	0	9

**What Facilities did at the beginning of the project:
Medication reviews by a pharmacist following admission**

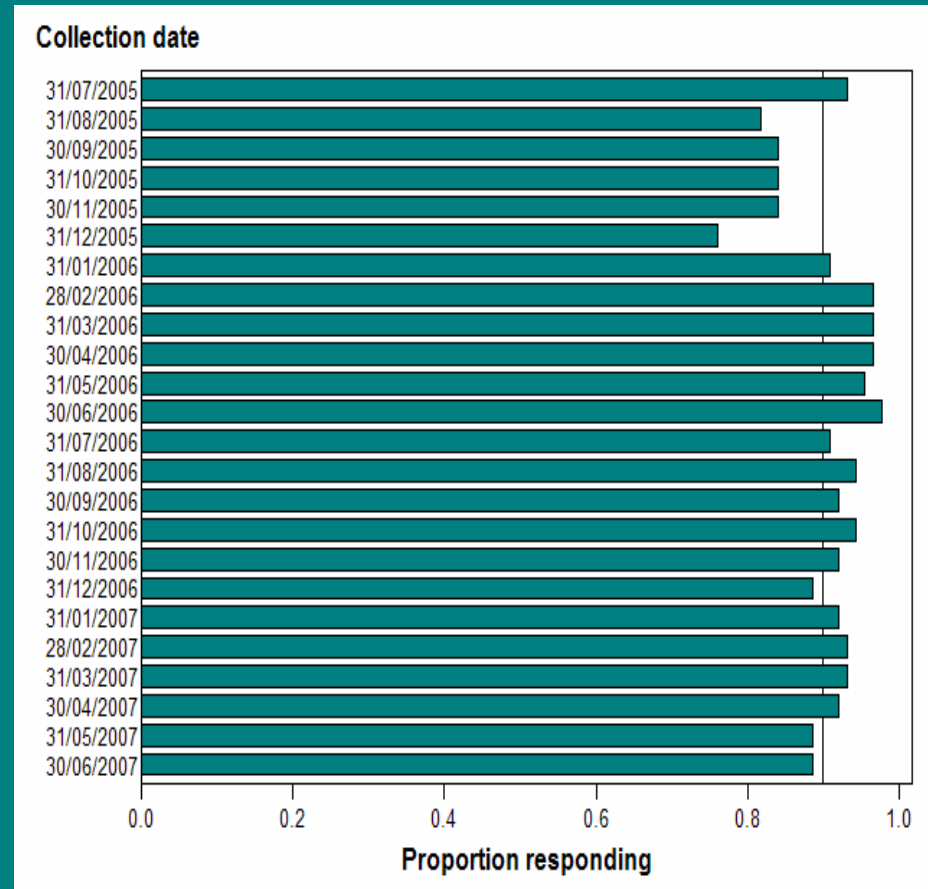
Time from admission	Intervention %	Control %
Less than one month	22	9.5
Within 3 months	41	55
Within 6 months	6.5	12
Within 12 months	0	2.4
Not done	6.5	2.4
Not reported	2.2	4.8

What Facilities did at the beginning of the project: Medications advisory committee

- 72 (82%) have one....
- 20 indicate no medical officer attendance
 - 5 said doctors invited but refused to attend
 - 3 said doctors invited but did not attend
 - 1 said GP paid to attend
 - 1 said MO attended but did not work with any of the residents
 - 1 (large facility) said 90% of MOs attend

Monthly data collection

- Monthly reports on:
 - Aspects of the intervention
 - Falls and falls outcomes
- Very high return rate;
76% - 97% over months
- Useful longitudinal data
over 2 years!

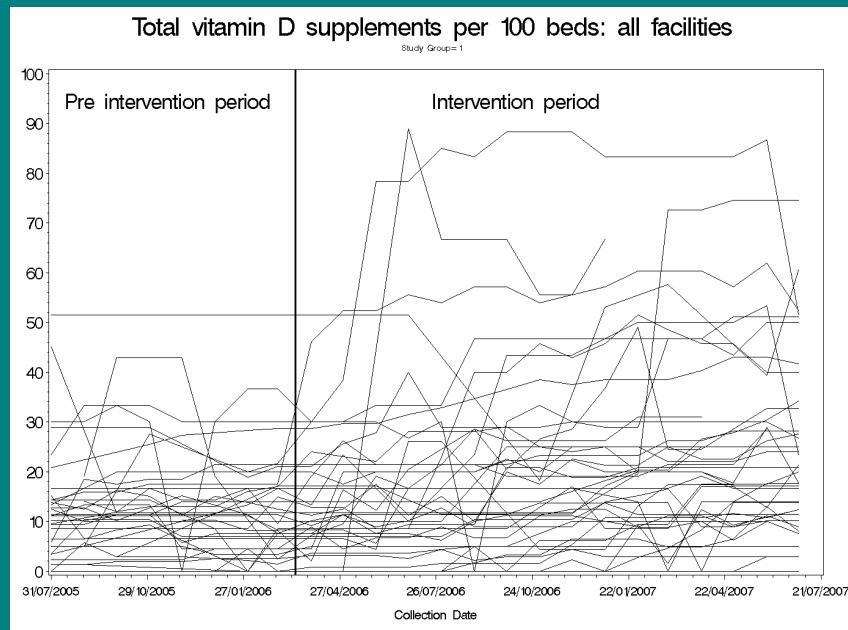


Biannual pharmacy audits per 100 beds

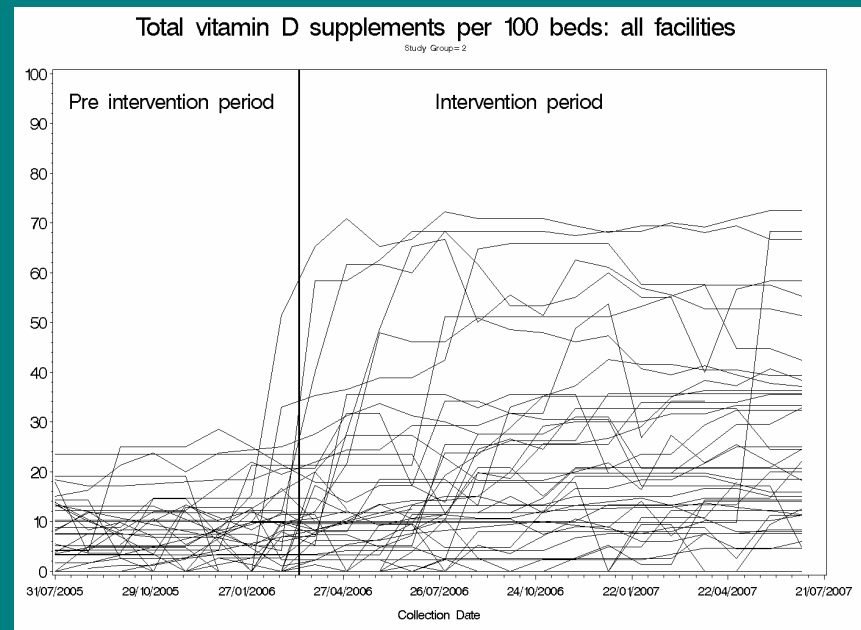
Period	Control	Intervention
Jul – Dec 2005	36	38
Jan – Jun 2006	42	44
Jul – Dec 2006	41	39
Jan – Jun 2007	39	29

Spaghetti plots: Vitamin D

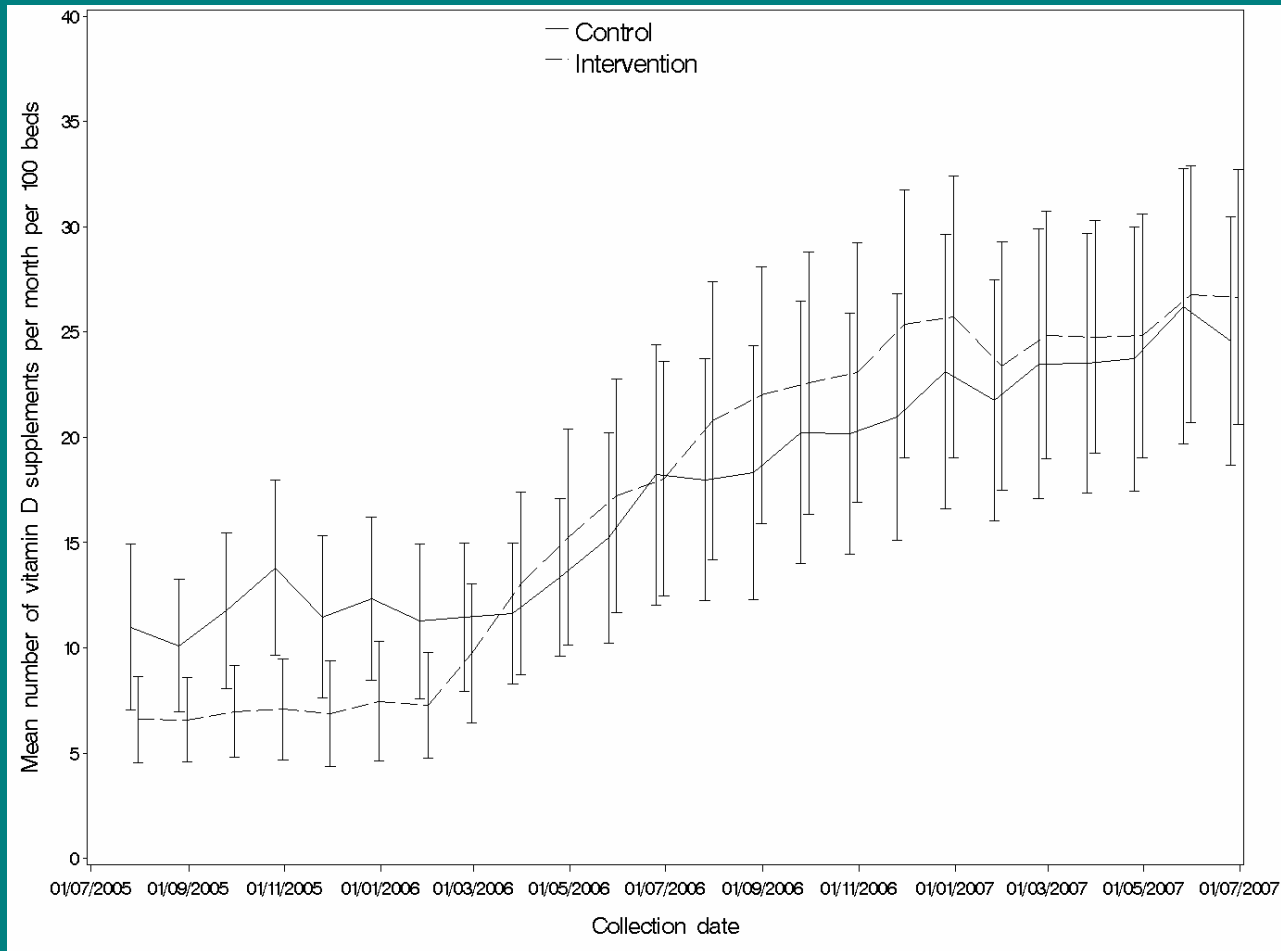
Control



Intervention



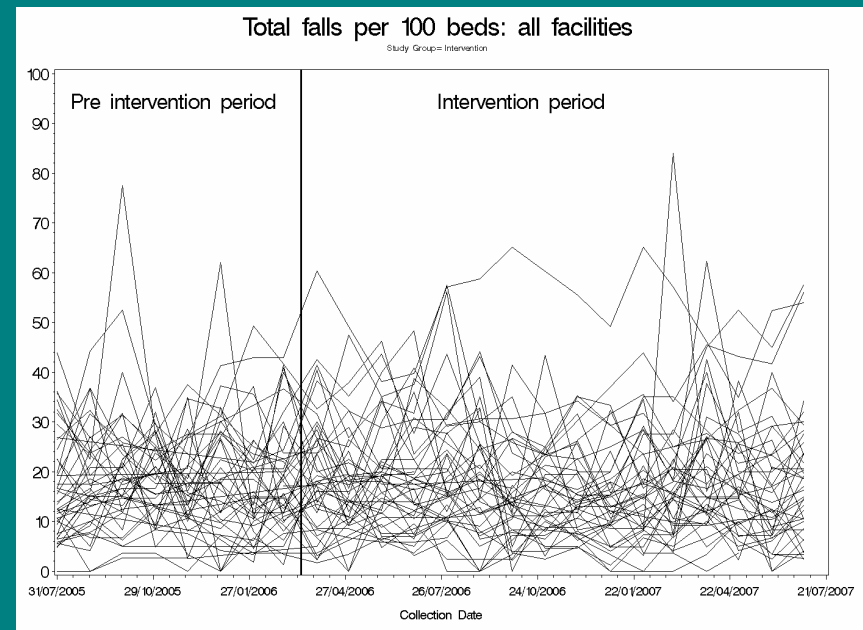
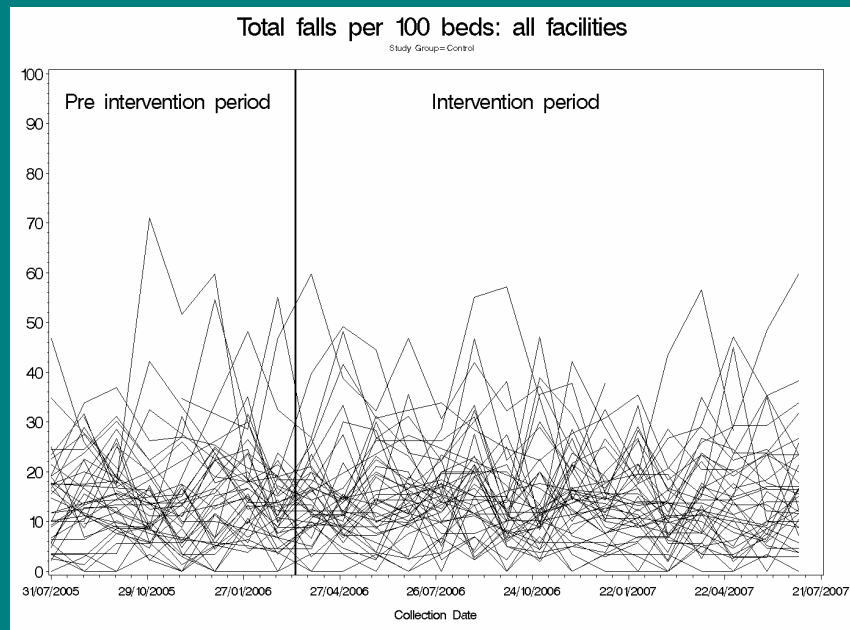
Vitamin D



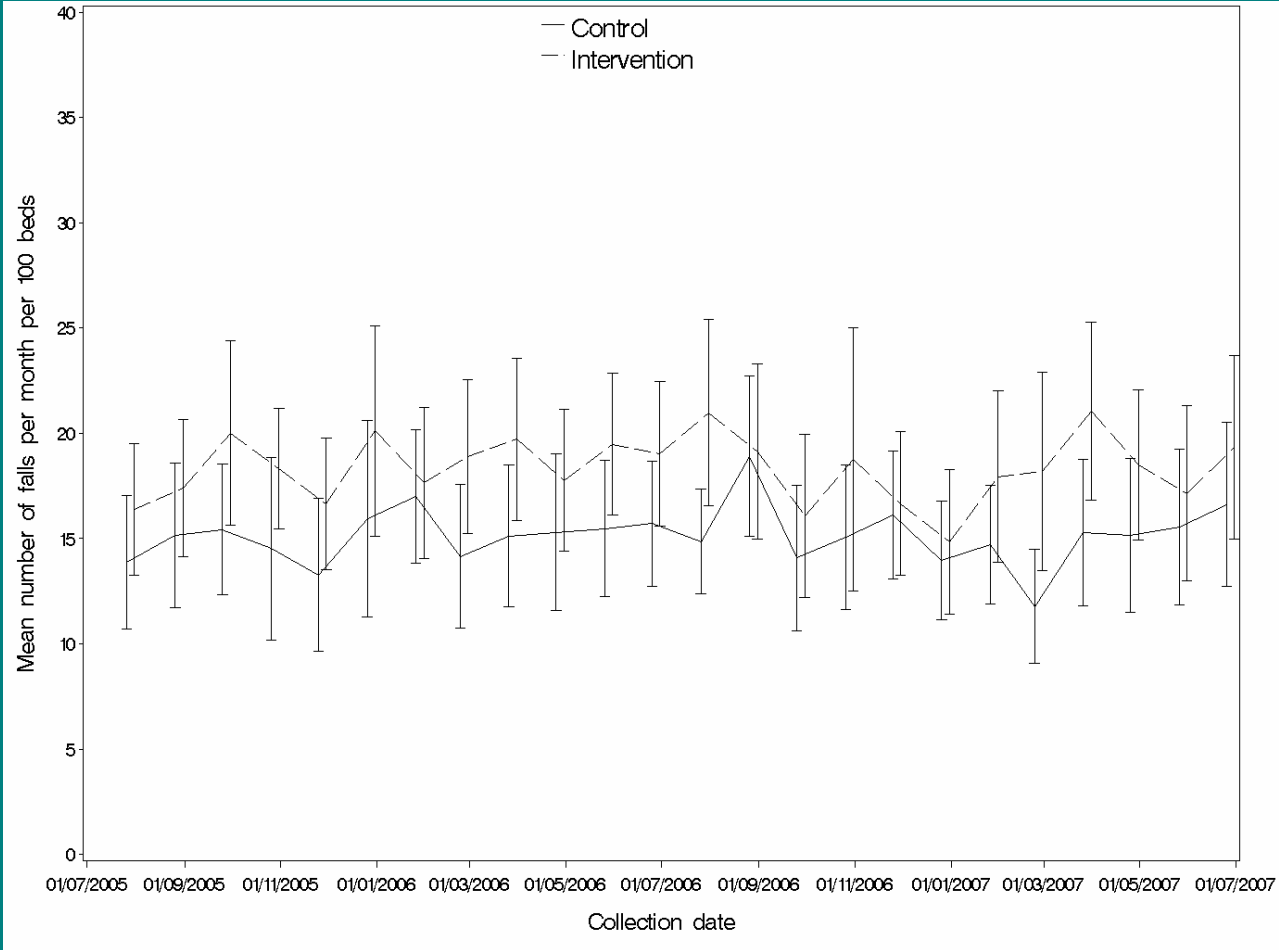
Hip Protectors

- Increase in the intervention group
- Decline in adherence in intervention group

Spaghetti plots: All Falls



All Falls



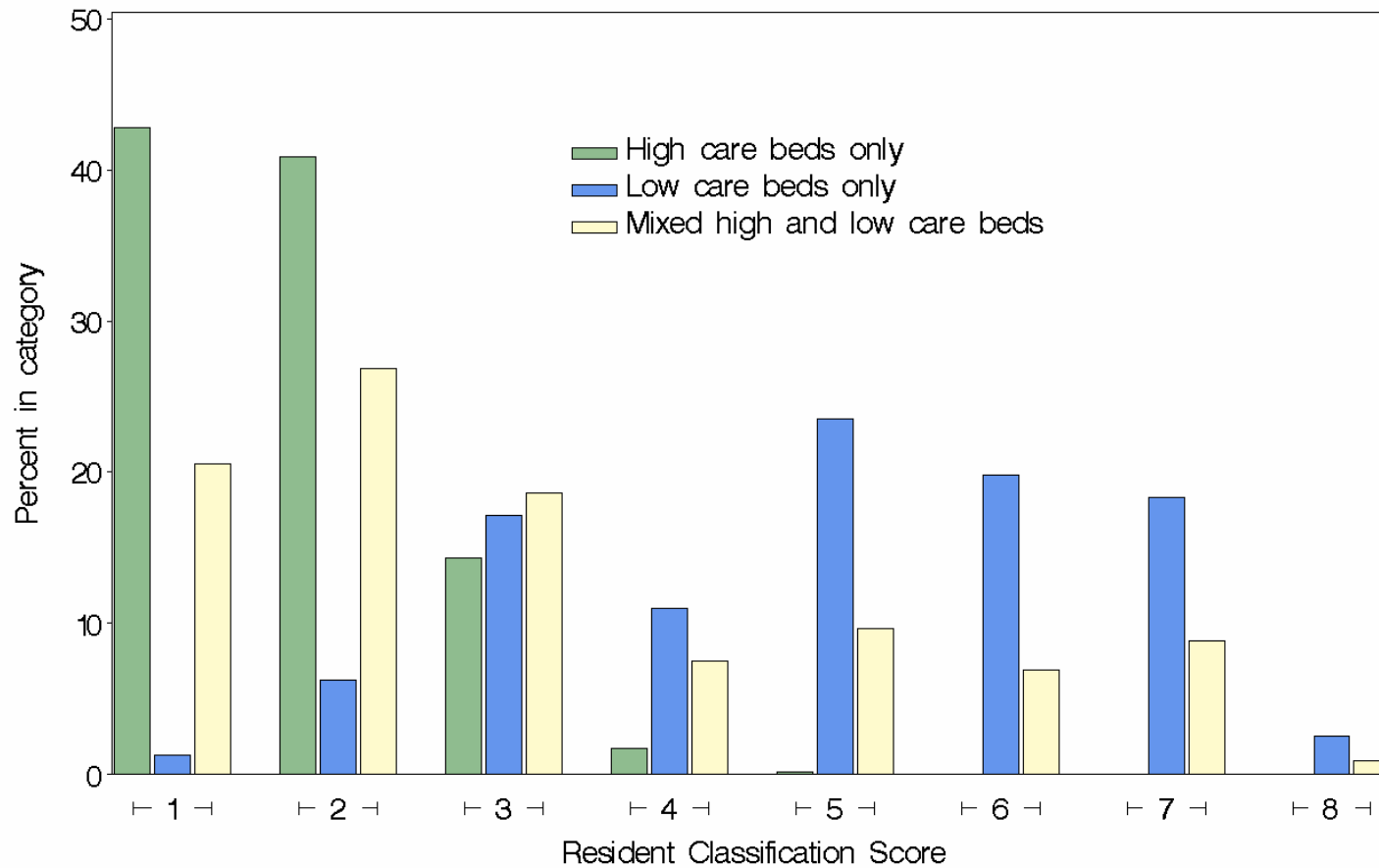
The Census and Resident Profiles

N = 5,388

Age in years: Median (range)	85 (27 – 107)
Female %	73
*Ambulant %	70
Dementia specific care %	21

* Ambulant defined as anyone who can stand and walk with or without assistance

RCS and Facility type



Following the residents to #NOF

- 5,388 residents at the census followed for almost 1½ years (Feb 2006 – July 2007)
- 221 fell with fractured neck of femur in the observation period
 - = 147 per year
 - = 27 per 1000 beds per year
- Around what was expected per year = 150; i.e. ~ 450 falls /year JHH with 1/3 from RACF
- 28 per 1000 beds per year (rough)
- Other residents fell but they were not in the cohort; n = 120
 - Total falls = 384 with 5,723 beds in total followed for 2 years
 - 34 falls per 1000 beds per year
- 5% fell within 90 days of their first admission.
- No difference between intervention and control with respect to number of #NOF overall.

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Future

Extensive dataset

- Analyse for risk of falling with #NOF
- Also for hospitalisation and mortality
- Rich source of information to inform policy

Thanks to participating RACF for providing this opportunity!