
Using clinical audit to improve outcomes: Irish Hip Fracture Database

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What is clinical audit?

The Commission on Patient Safety and Quality Assurance (2008) defined clinical audit as:

“a clinically led, quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and to act to improve care when standards are not met”



Why Audit (IHFD)?

- ✓ Hip fracture management takes a frail patient through a complex clinical pathway involving a wide range of specialties & is an ideal marker condition for the care of frail older patients.
- ✓ Clearly defined diagnosis
- ✓ Good evidence base for care and prevention
- ✓ Care is complex and costly
- ✓ Care, outcomes and costs vary
- ✓ Numbers rising
- ✓ 3,610 hip fractures in 2015 at an estimated cost of > € 45 million



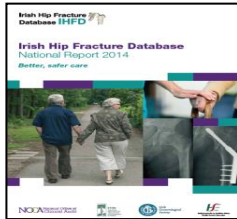


IHFD Reports



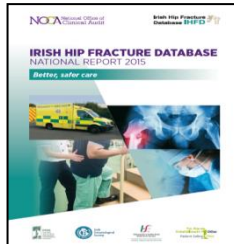
1st National Report 2013: **1950 cases**

12 hospitals



2nd National Report 2014: **2664 cases**

14 hospitals



3rd National Report 2015: **2962 cases**

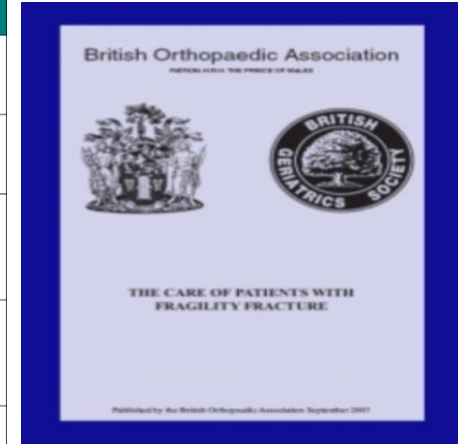
16 hospitals

4th National 2016 Report due to be published in November: 3123 cases



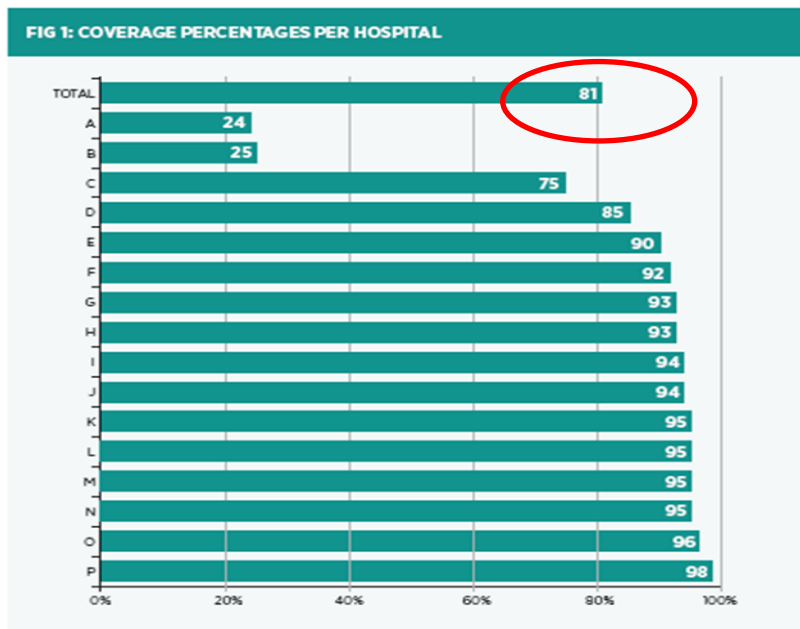
Blue Book Standards

Blue Book Standards	IHFD 2014 N=2,664 %	IHFD 2015 N=2,962 %	NHFD 2015 N= 64,864 %
Standard 1 All patients with hip fracture should be admitted to an acute orthopaedic ward within 4 hours of presentation	9	10	44
Standard 2 All patients with hip fracture who are medically fit should have surgery within 48 hours of presentation, and during working hours (Mon - Sun 08:00 - 17:59)	69	72	72
Standard 3 All patients with hip fracture should be assessed and cared for with a view to minimising their risk of developing a pressure ulcer – number of patients who developed a pressure ulcer	5	4	3
Standard 4 All patients presenting with a fragility fracture should be managed on an orthopaedic ward with routine access to orthogeriatric medical support from the time of admission	8	15	88
Standard 5 All patients presenting with a fragility fracture should be assessed to determine their need for bone protection therapy to prevent further osteoporotic fractures	42	47	80
Standard 6 All patients presenting with a fragility fracture following a fall should be offered multi-disciplinary assessment and intervention to prevent future falls	54	49	97
Inpatient mortality	4	5	7
Length of stay	19 (12.5)	20 (13)	16





Coverage



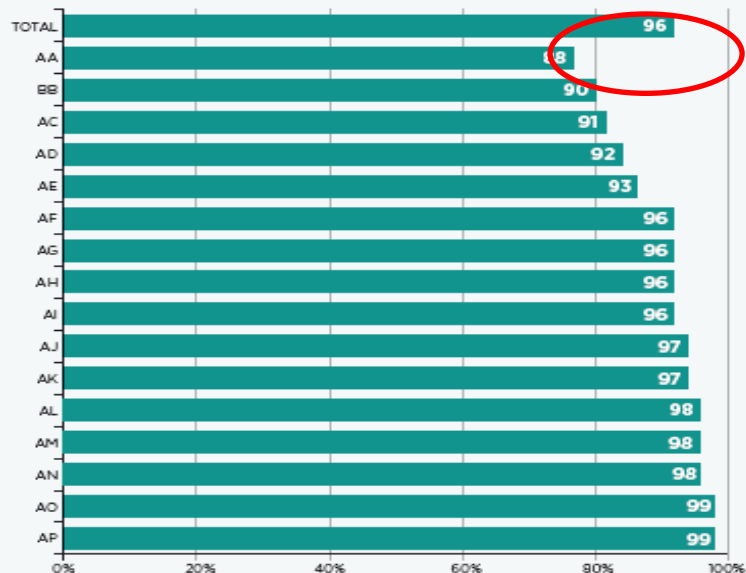
National 2016 Report due to be published in November sows increase in coverage
to 86.5%



Completeness

The overall data completeness¹¹ level for IHFD fields used in generating the graphs in this report is 96%, which is an increase on the 2014 level of 93%. Individual hospital proportions range from 88% to 99%, Figure 3. The recording of dates/times for patients not admitted via ED in the operating hospitals remains a challenge and there are also significant completeness deficits for the Abbreviated Mental Test (AMT) Performed, American Society of Anaesthesiologists (ASA) Grade, Reason for Delayed Surgery, and Type of Fracture data items.

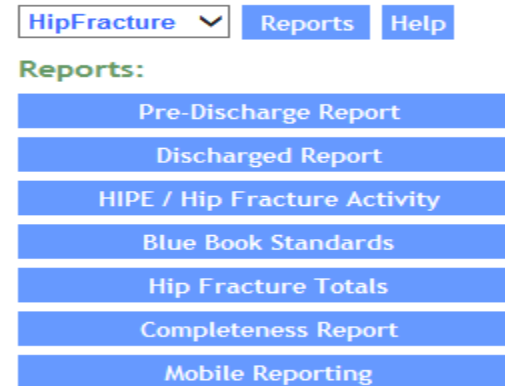
FIGURE 3: COMPLETENESS PERCENTAGES PER HOSPITAL

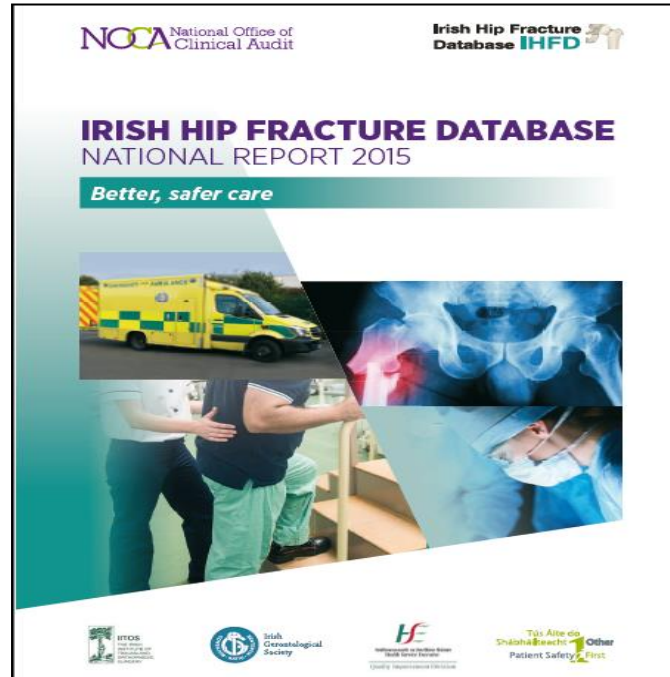




HIPE Add-on screen

- HIPE portal
- Demographic data, admission source from HIPE
- Clinical data entered through IHFD on care, standards and outcomes

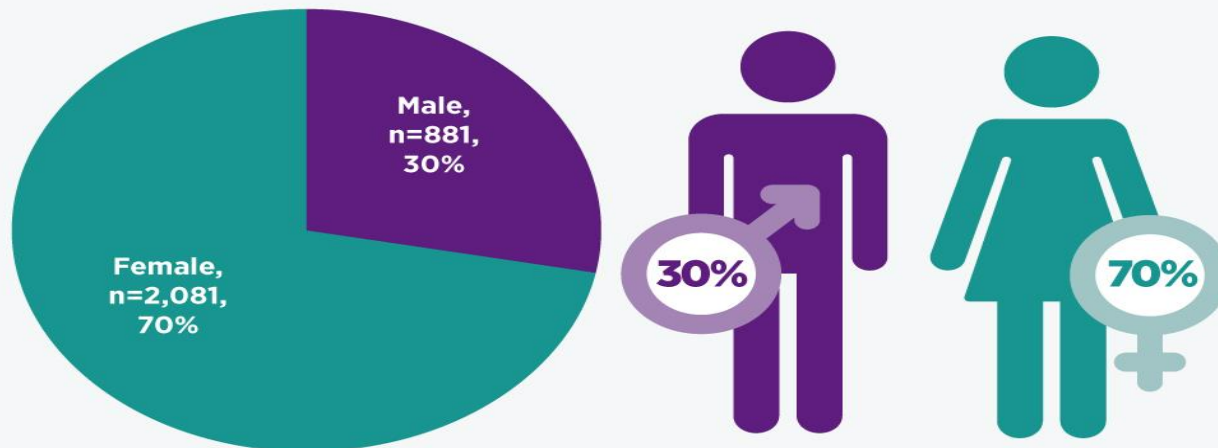






Gender (N=2,962)

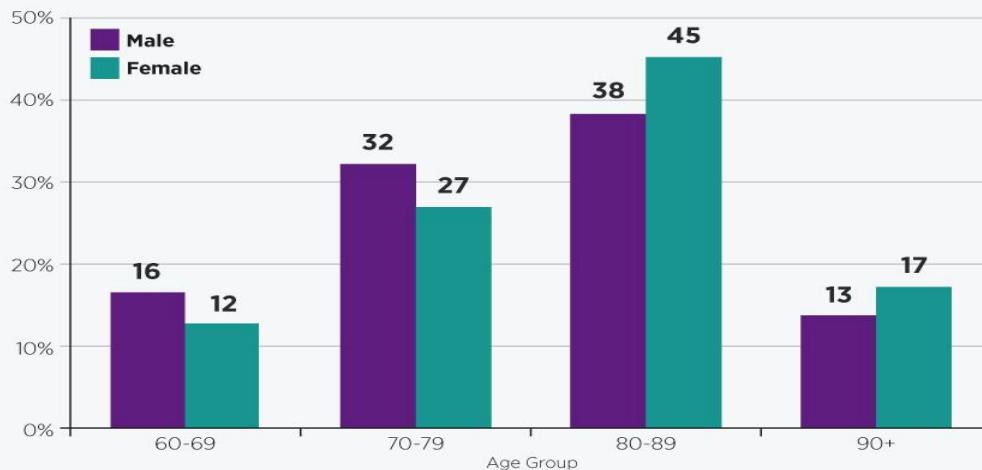
FIGURE 4: GENDER PERCENTAGES BY AGE GROUP (N=2,962)





Age group percentages (N=2,962)

FIGURE 5: AGE GROUP PERCENTAGES FOR MALES (n=881) AND FEMALES (n=2,081)^{iv}

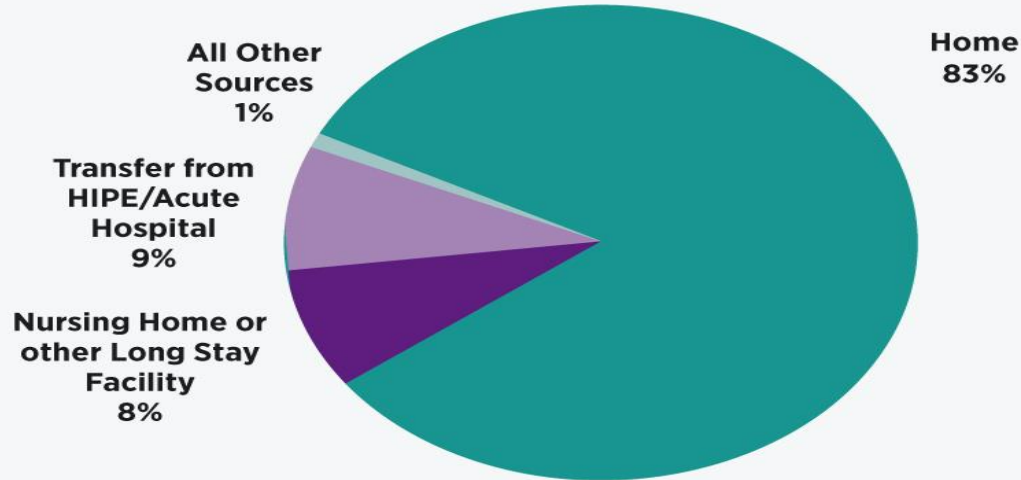


^{iv} Please note: Percentages may not sum to 100% due to rounding



Source of admission (N=2,962)

FIGURE 6: SOURCE OF ADMISSION PERCENTAGES (N=2,962)^v

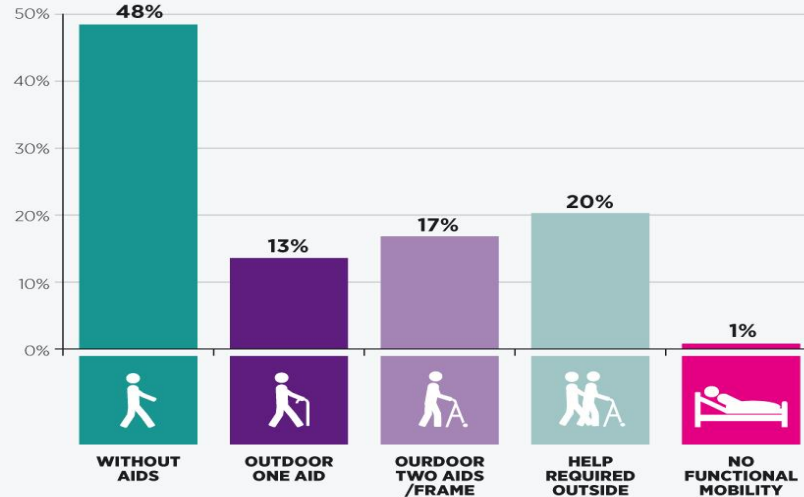


^v Please note: Percentages may not sum to 100% due to rounding



Pre-fracture mobility (n=2,170)

FIGURE 9: KNOWN PRE-FRACTURE MOBILITY PERCENTAGES (n=2,170)^{vi}



In 2016 new functional measures have been added to the dataset

^{vi} Please note: Percentages may not sum to 100% due to rounding



Type of fracture (N=2,962)

FIGURE 10: TYPE OF FRACTURE PERCENTAGES (N=2,962)

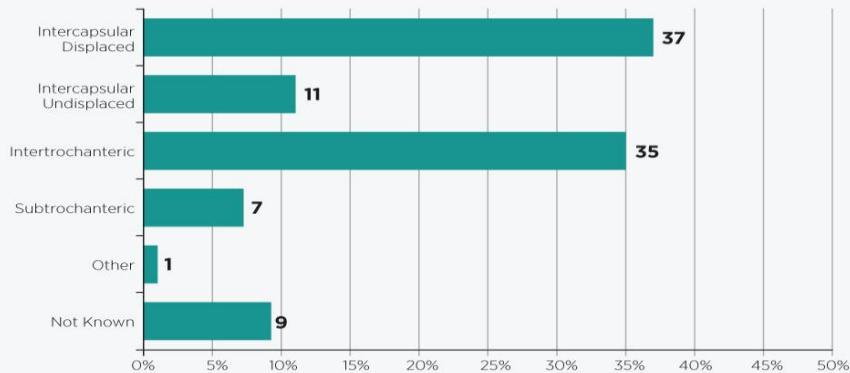
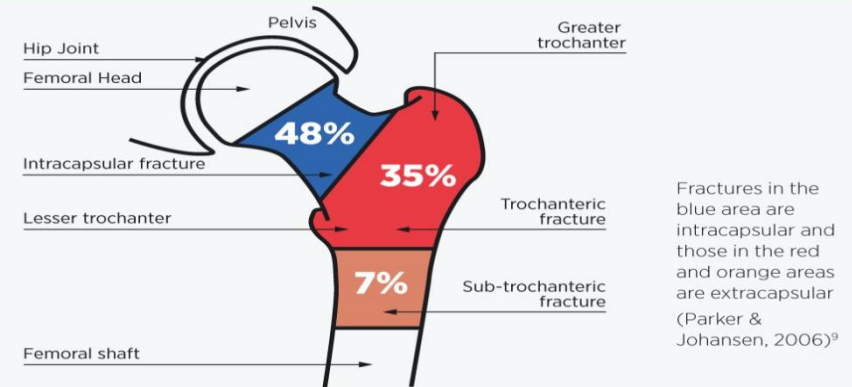


FIGURE 11: CLASSIFICATION OF HIP FRACTURES

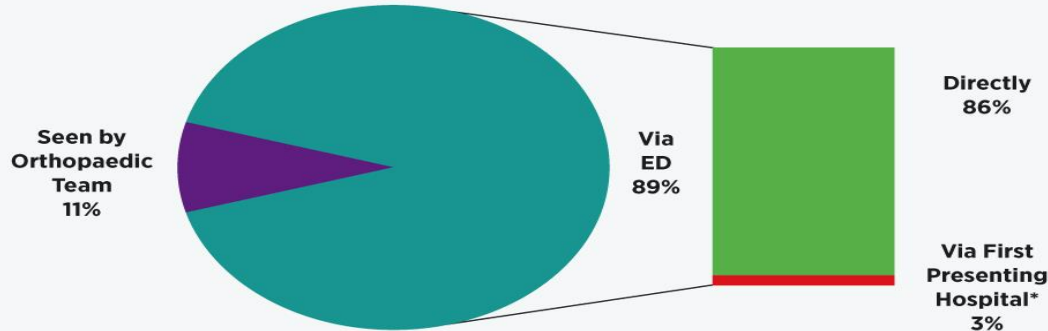


To ensure uniformity in the classification of hip fractures, education was provided and supports within the database are now built in to improve data quality in this field. There was a 4 percentage point improvement in 2015 compared to 2014



Mode of admission (N=2,962)

FIGURE 12: MODE OF ADMISSION TO OPERATING HOSPITAL PERCENTAGES (N=2,962)



*includes 'Not Known' category which is not itemised separately for patient confidentiality reasons.

**76 patients had a
hospital acquired
diagnosis of a hip
fracture**



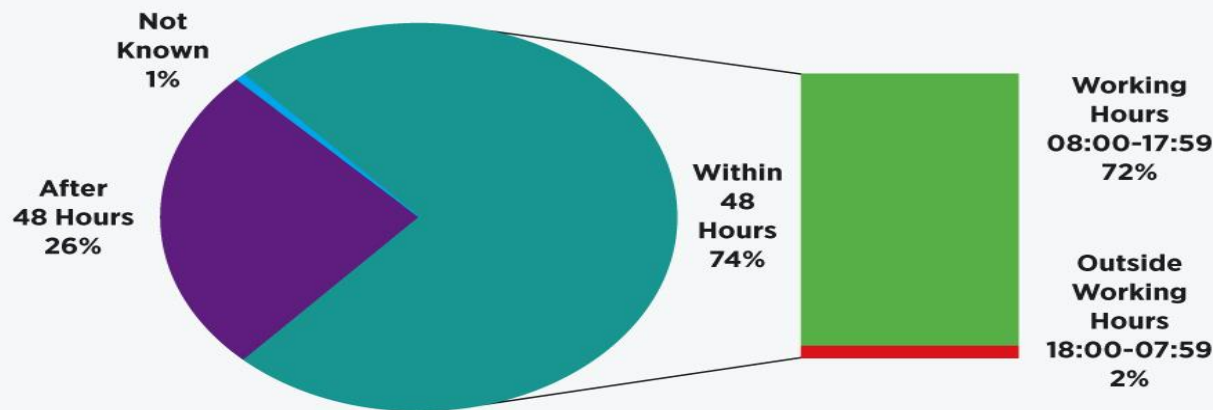
All suspected hip fracture patients should be brought directly to the trauma operating hospital.



Blue Book Standard 2

Time to and time of surgery (n=2827)

FIGURE 15: TIME TO AND TIME OF SURGERY PERCENTAGES (n=2,827)^{vii}



^{vii} Please note: Percentages may not sum to 100% due to rounding



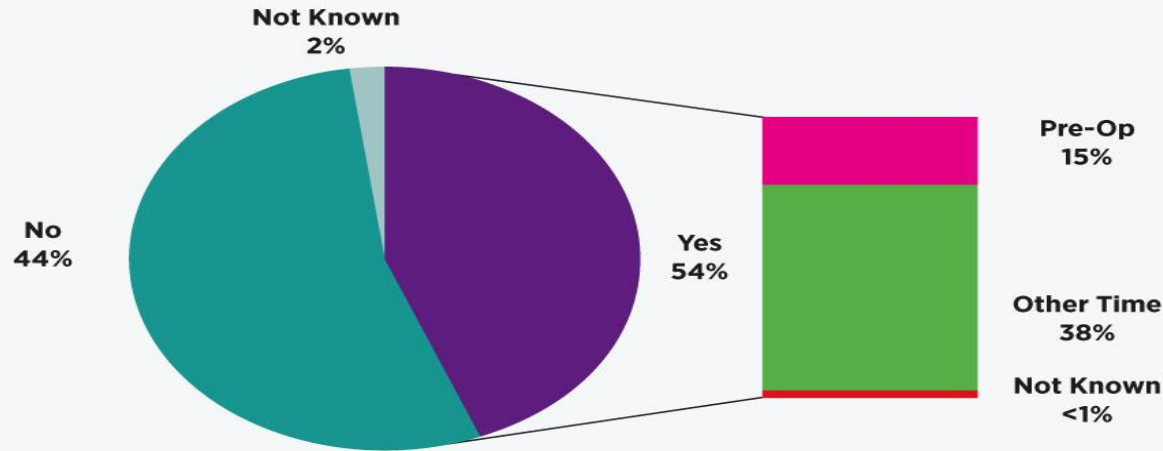
In 2015, 72% of medically fit patients received surgery within 48 hours and during normal working hours (See Table 3) - this is an increase of 3 percentage points compared with 2014.



Blue Book Standard 4

Assessment by a geriatrician (N=2,962)

FIGURE 18: ASSESSMENT BY GERIATRICIAN PERCENTAGES (N=2,962)



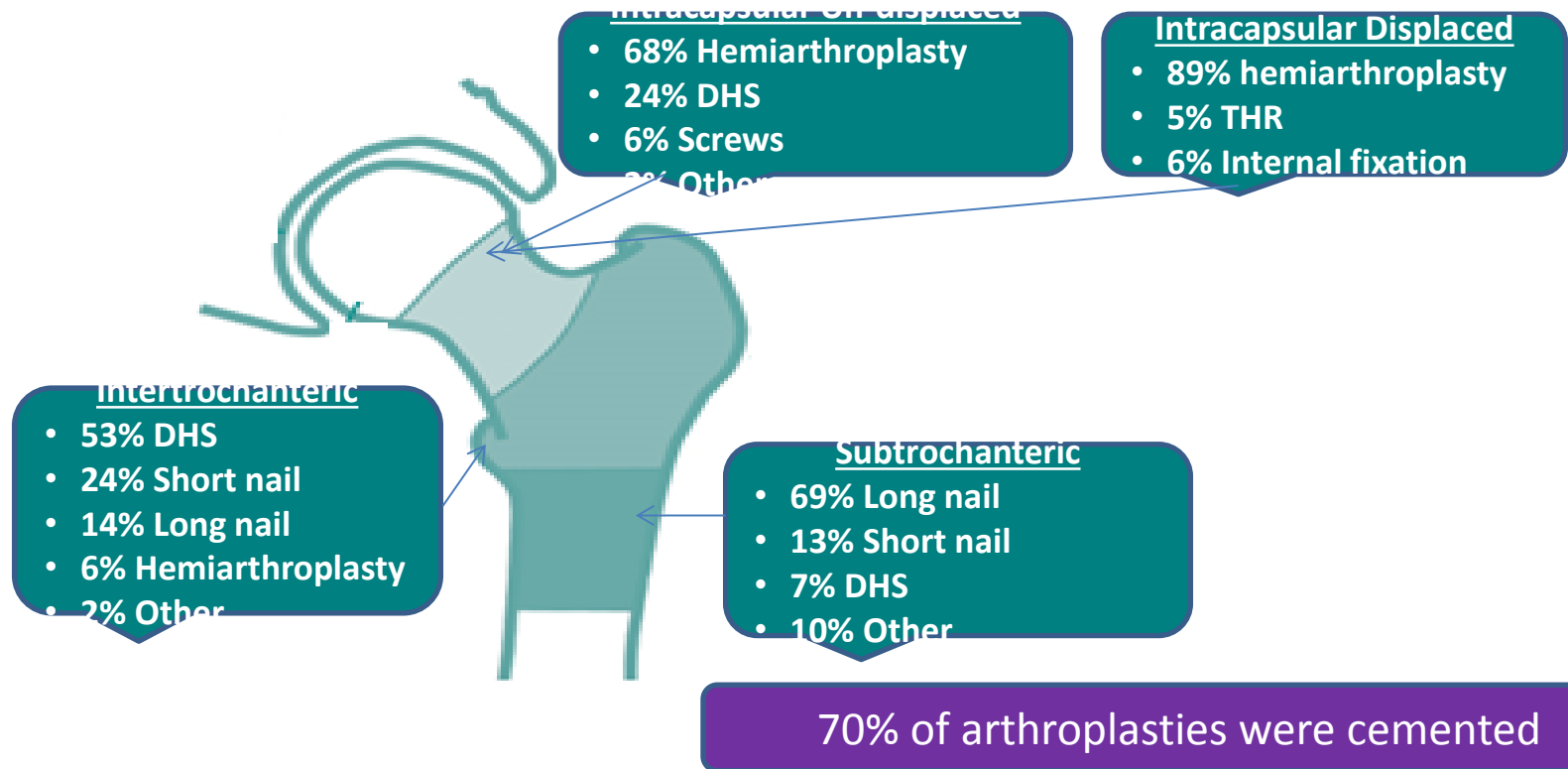
**61% of
reviews were
carried out by
a consultant
geriatrician**



Thirty-nine percent (39%) of patients were reviewed by a geriatrician at any time during their admission. The proportion of patients being reviewed pre-operatively is 15% (See Table 3) - this is an increase of 7 percentage points compared with 2014.



Types of fixation by fracture type





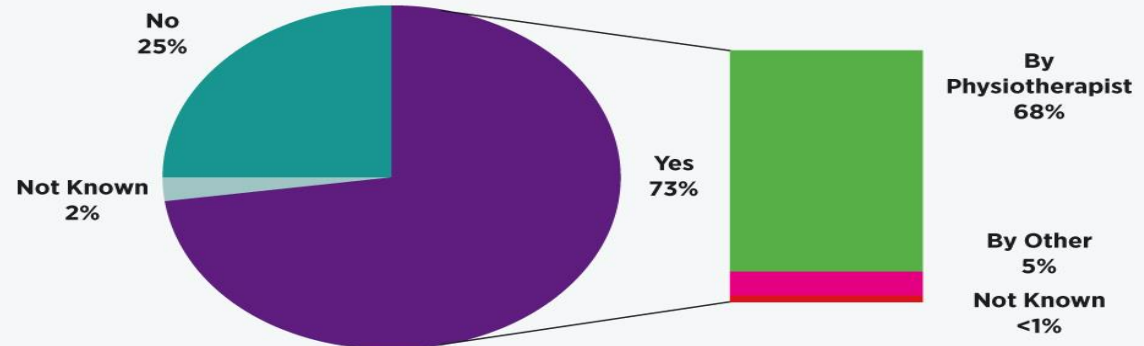
Early mobilisation



- 7 day physiotherapy for hip fracture patients is only available in 7 hospitals, the majority of hospitals offer a Monday-Friday service.

• 12 hospitals have off-site rehabilitation and 2 have on

FIGURE 26: MOBILISATION PERCENTAGES (n=2,827)

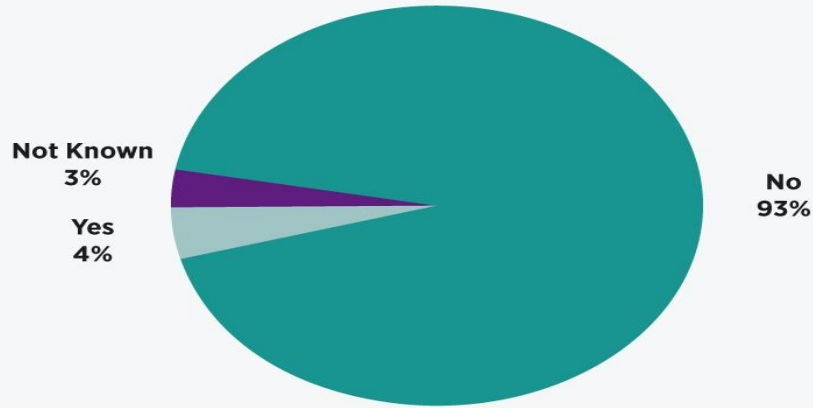




Blue Book Standard 3

Pressure ulcers (n=2,820)

FIGURE 27: PRESSURE ULCER PERCENTAGES (n=2,820)



Professor Zena Moore, RCSI and IHFD: study on pressure ulcers and hip fracture 2013-2015.



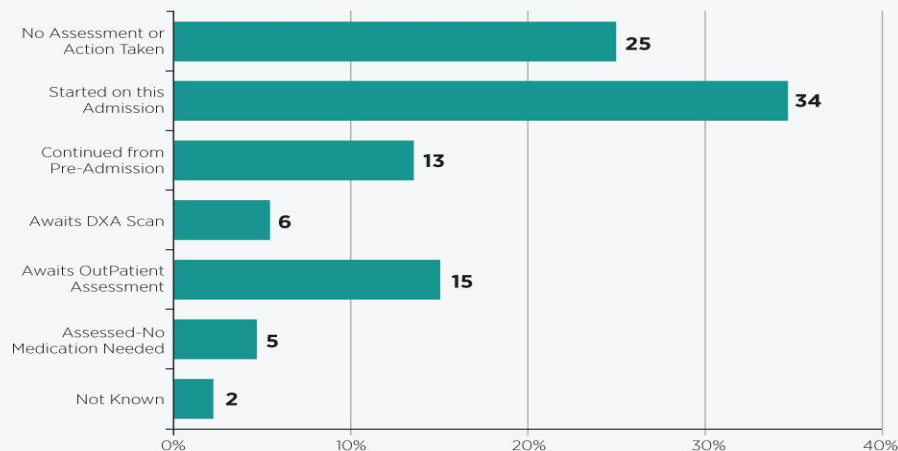
RCSI



Blue Book Standard 5

Bone health assessment (n=2,820)

**FIGURE 28: BONE HEALTH ASSESSMENT/BONE PROTECTION MEDICATION
PERCENTAGES (n=2,820)**



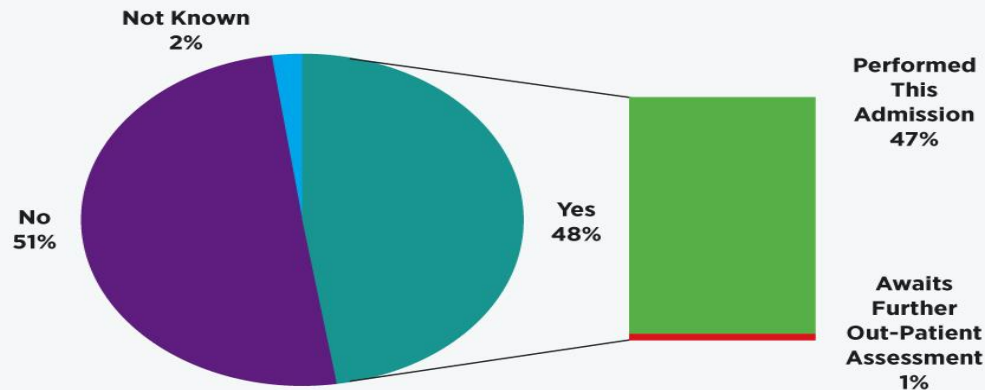
Seventy-five percent (75%) of patients received a bone health assessment in 2015. This is an increase of 8 percentage points compared with 2014.



Blue Book Standard 6

Specialist falls assessment (n=2,820)

FIGURE 29: SPECIALISTS FALLS ASSESSMENT PERCENTAGES (n=2,820)^{xi}

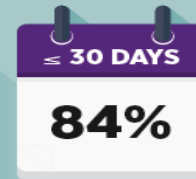
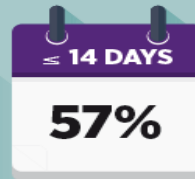
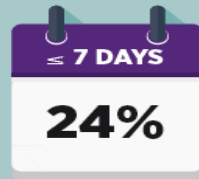
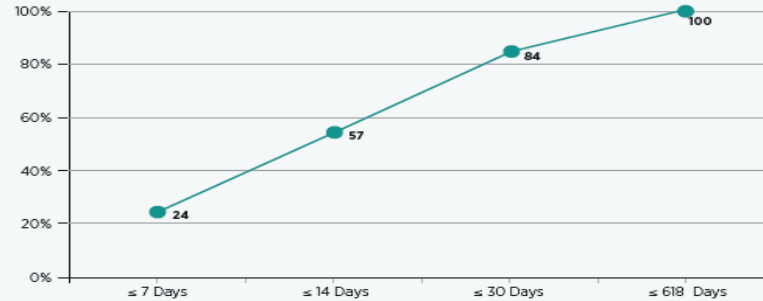


^{xi} Please note: Percentages may not sum to 100% due to rounding



Length of stay (N=2,962)

FIGURE 31: CUMULATIVE LENGTH OF STAY PERCENTAGES (N=2,962)



The mean and median length of stay in 2015 are 20 days and 13 days respectively.



Key recommendations

2015 IHFD NATIONAL REPORT **KEY RECOMMENDATIONS**



All suspected hip fracture patients should be brought directly to the trauma operating hospital.



Hospitals should submit 100% of their data and provide protected time for data collection.



All 16 hospitals should establish a hip fracture working group, to review and utilise the IHFD data locally to improve patient care.



Current coverage (End of Mar 2017)

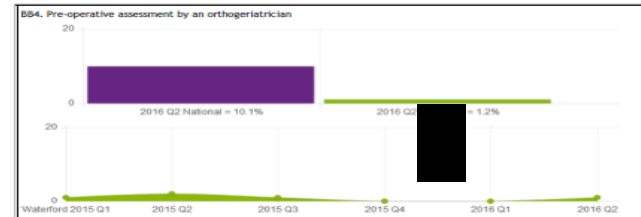
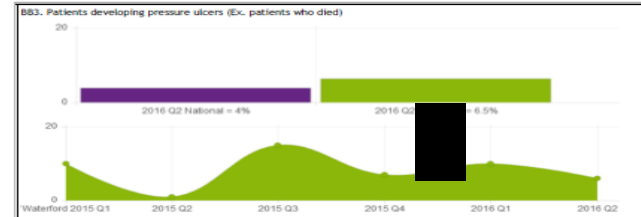
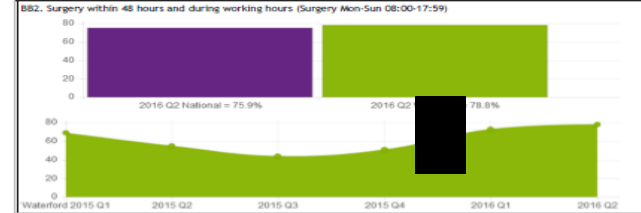
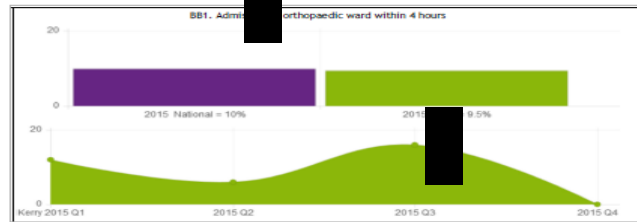
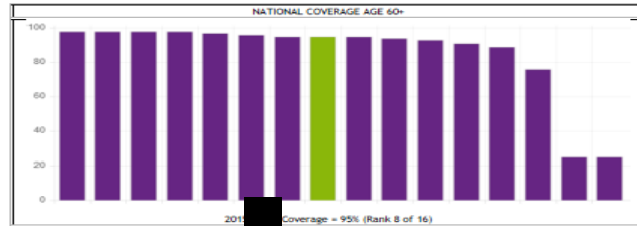
IHFD - FINAL 2016 DISCHARGES - END OF MARCH 2017 - AGE 60+									
IHFD - All Age 60+	IHFD* Age 60+	HIPE* Age 60+	Coverage = IHFD* / HIPE* Age 60+	Meeting all 6 standards (N = 3202)	Meeting at least 5 standards	Meeting at least 4 standards	Meeting at least 3 standards	Meeting at least 2 standards	Meeting at least 1 standard
155	145	145	100.0%	0	4	25	77	145	155
221	221	221	100.0%	0	17	125	182	209	220
248	230	233	98.7%	0	0	19	161	231	248
271	262	264	99.2%	0	1	15	124	230	270
176	176	178	98.9%	0	1	15	68	150	174
126	126	129	97.7%	0	3	32	84	115	125
297	291	299	97.3%	2	50	221	282	295	297
186	181	188	96.3%	0	16	109	170	182	185
131	128	133	96.2%	0	12	59	102	129	132
170	168	175	96.0%	0	7	69	134	162	169
127	123	129	95.3%	1	17	58	90	115	125
390	389	413	94.2%	0	2	43	117	302	382
301	295	320	92.2%	17	112	216	267	286	299
141	134	181	74.0%	0	21	71	93	104	134
244	239	476	50.2%	0	17	91	180	221	235
18	15	126	11.9%	0	2	10	16	17	18
3202	3123	3610	86.5%	20	282	1178	2147	2893	3168



Updated quarterly reports

Hospital	[REDACTED]
Title	Hip Fracture Database Report - 2015 Discharges (Jan-Dec) Local v National Comparison
Prepared for	Trust Data Coordinator / Hospital Clinical Lead / Hospital Governance Committee
Date	2016

COVERAGE JAN-DEC AGE 60+					
Hospital	Average Age	Average LOS	IHFD*	HIPE*	Coverage
Kerry	80 Years	16 Days	142	149	95%



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Thank you

“Looking after hip fracture patients well, is a lot cheaper then looking after them badly”