

The national effect of applying Enhanced Recovery principles to fractured neck of femur patients

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Enhanced Recovery

Enhanced Recovery pathways across surgical disciplines have been shown to improve:

- Length of stay (LOS)
- Mortality
- Discharge destination
- Re-admission rate

Enhanced Recovery in Fractured Neck of Femur - Literature

“Perioperative multimodal optimisation in patients undergoing surgery for fractured neck of femur”
(Macfie et al. 2012)

Conclusion - Multimodal optimisation may be associated with a decline in post-operative morbidity in patients with proximal hip fracture. It does not have any significant impact on the length of hospital stay and 30-day mortality.

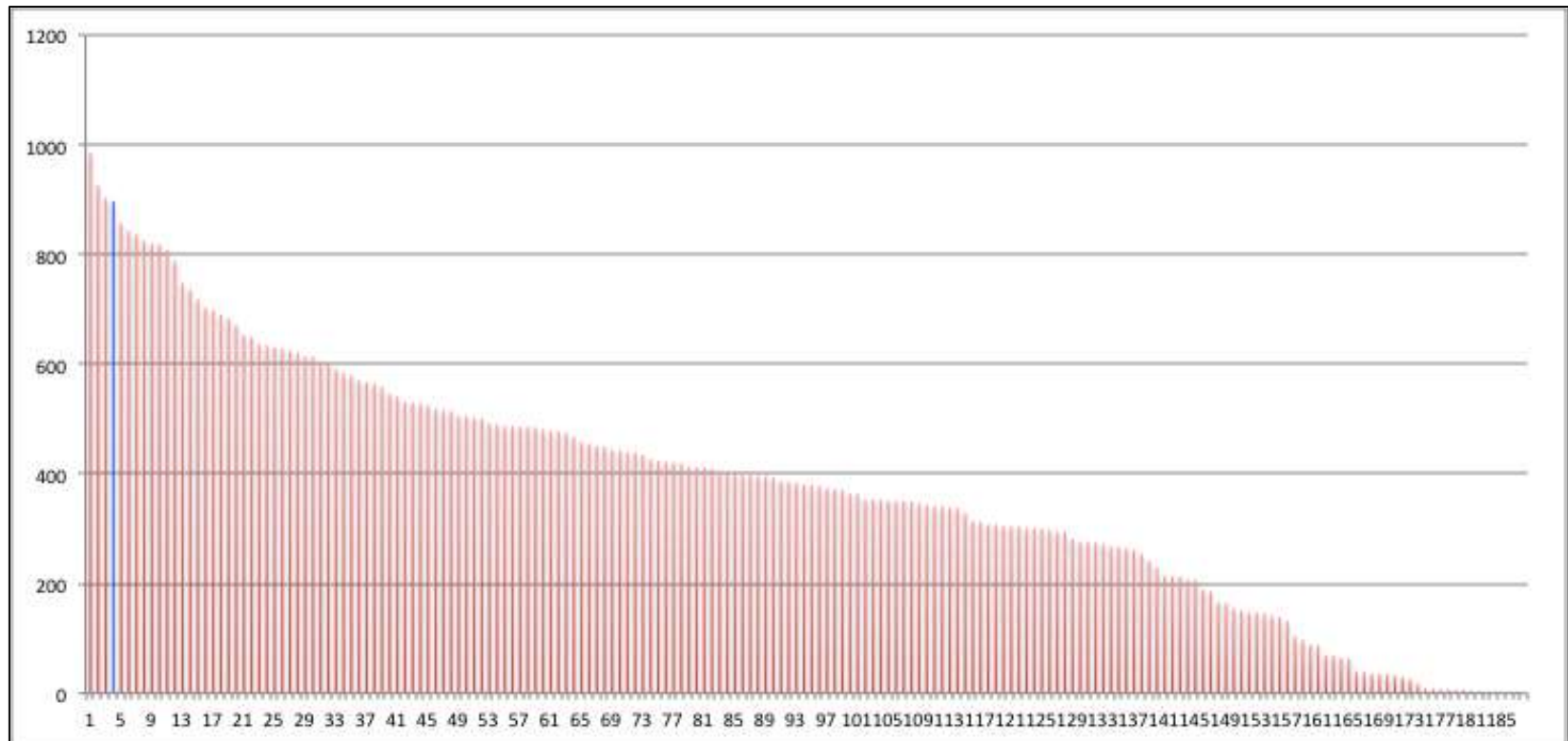
Enhanced Recovery in Fractured Neck of Femur – Poole example

- Length of stay (LOS) reduced
- Mortality rate reduced
- Percentage of patients discharged home increased
- Re-admission rate decreased

Number of Fractured NOFs per year

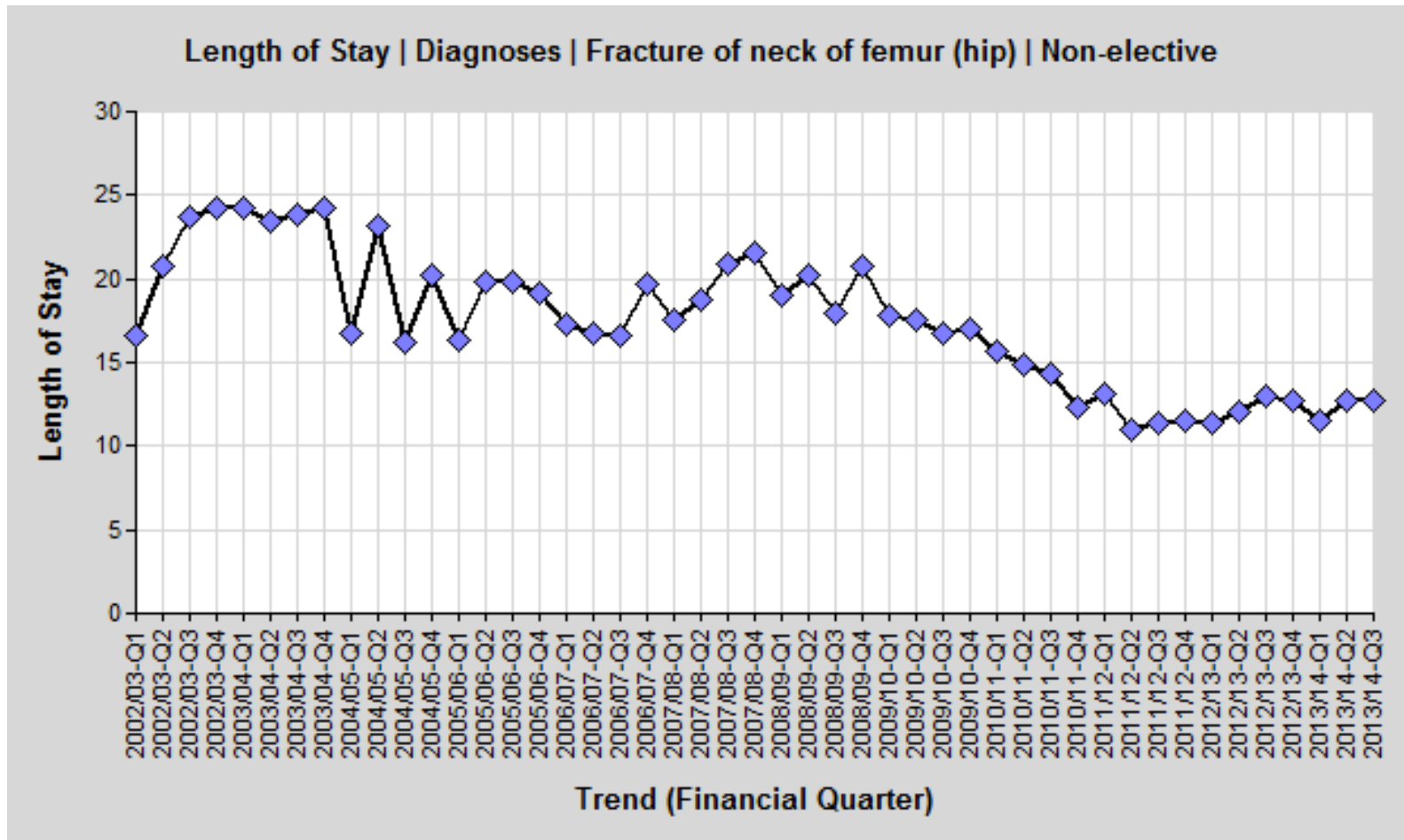
Poole Hospital – 1002 episodes and 897 spells

Graph shows number of fractured NOFs spells in all English hospitals per year 2012/13-Q4 to 2013/14-Q3



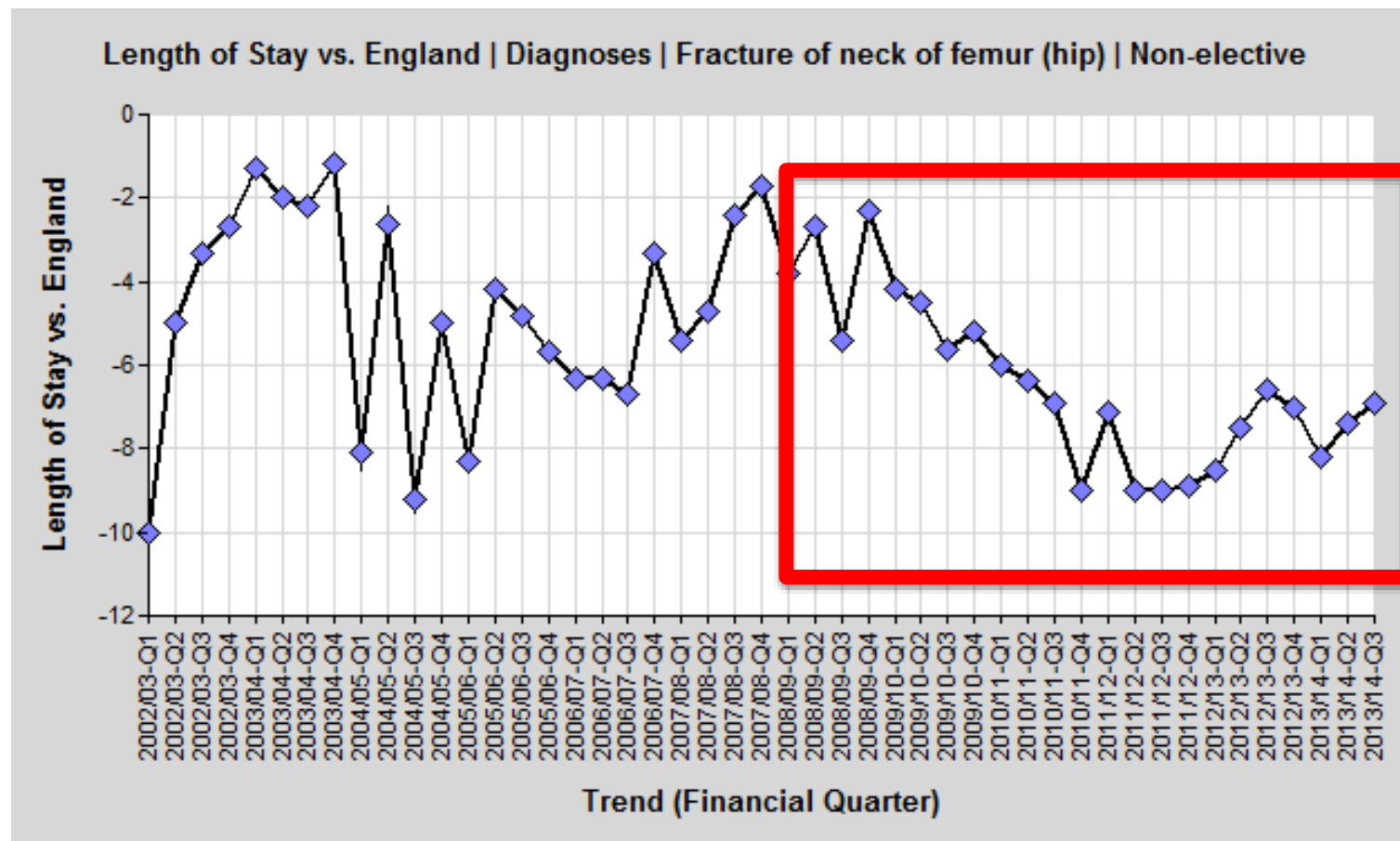
Length of stay

Quarterly trend from 2002/03-Q1 to 2013/14-Q3



Length of stay vs Case-mix expected

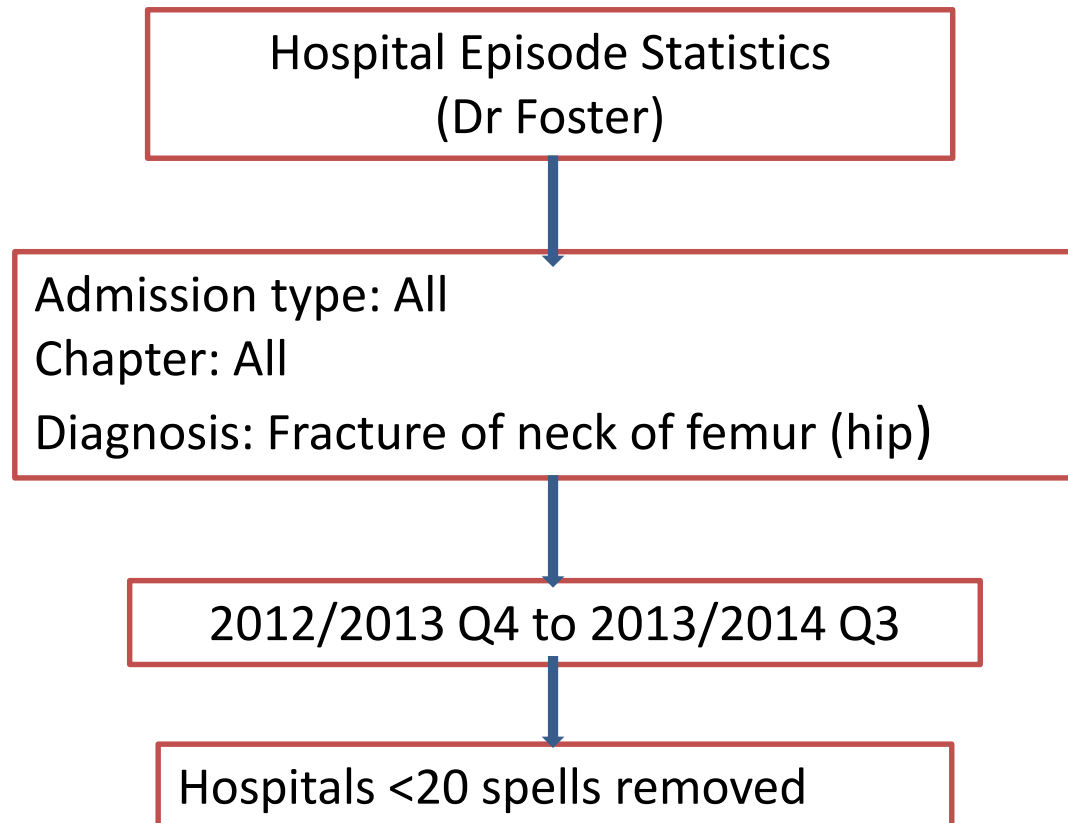
Quarterly trend from 2002/03-Q1 to 2013/14-Q3



Study objective

- To model the potential effect of applying Enhanced Recovery principles to all Fractured Neck of Femur (FNoF) pathways across England

Methodology - I



Methodology - II

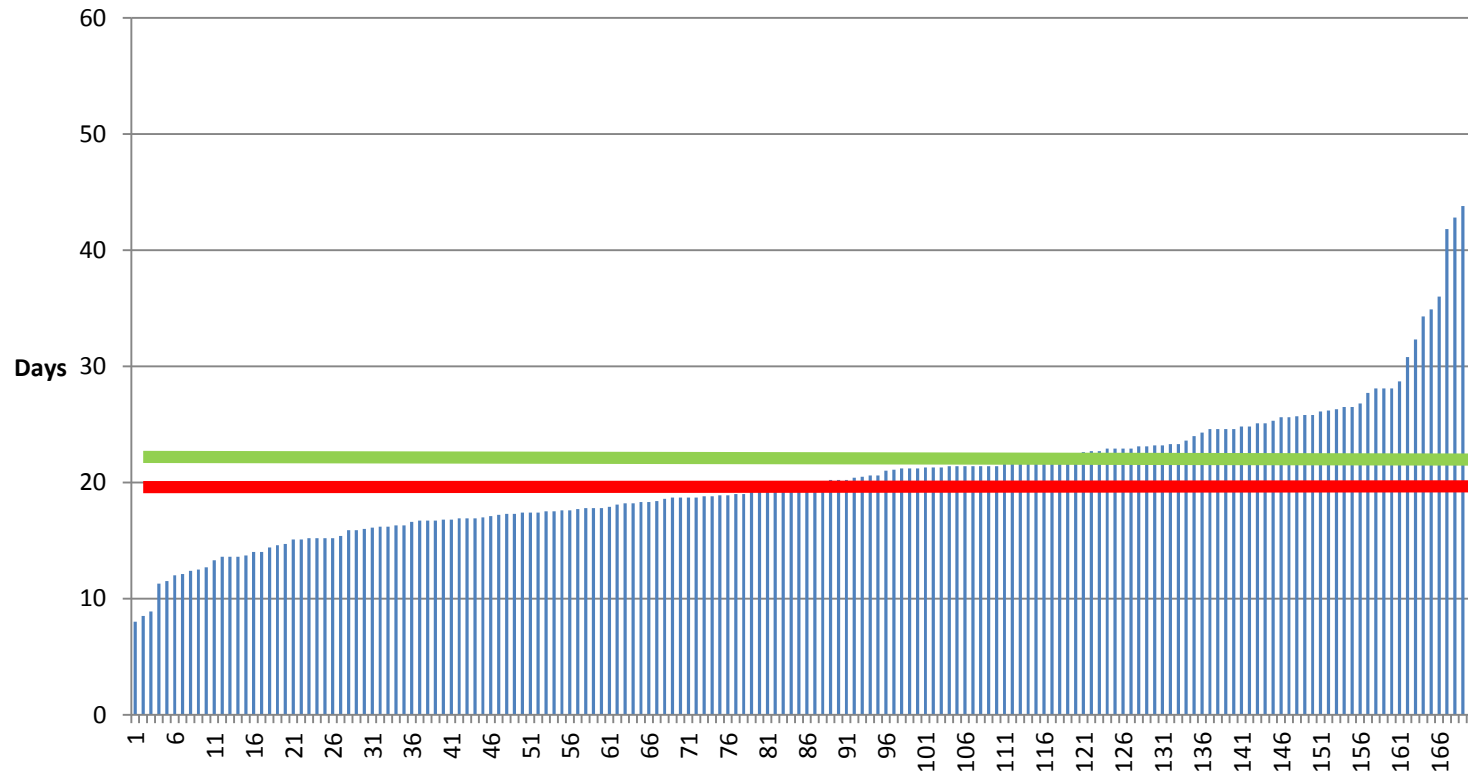
The following variables were considered:

- Episodes
- Spells
- Superspells
- Expected LOS
- Actual LOS
- Difference between expected and actual LOS
- PBD (Potential bed days)
- Total Bed Days

Results - Actual LOS in English hospitals for 2012/13 Q4 to 2013/14 Q3

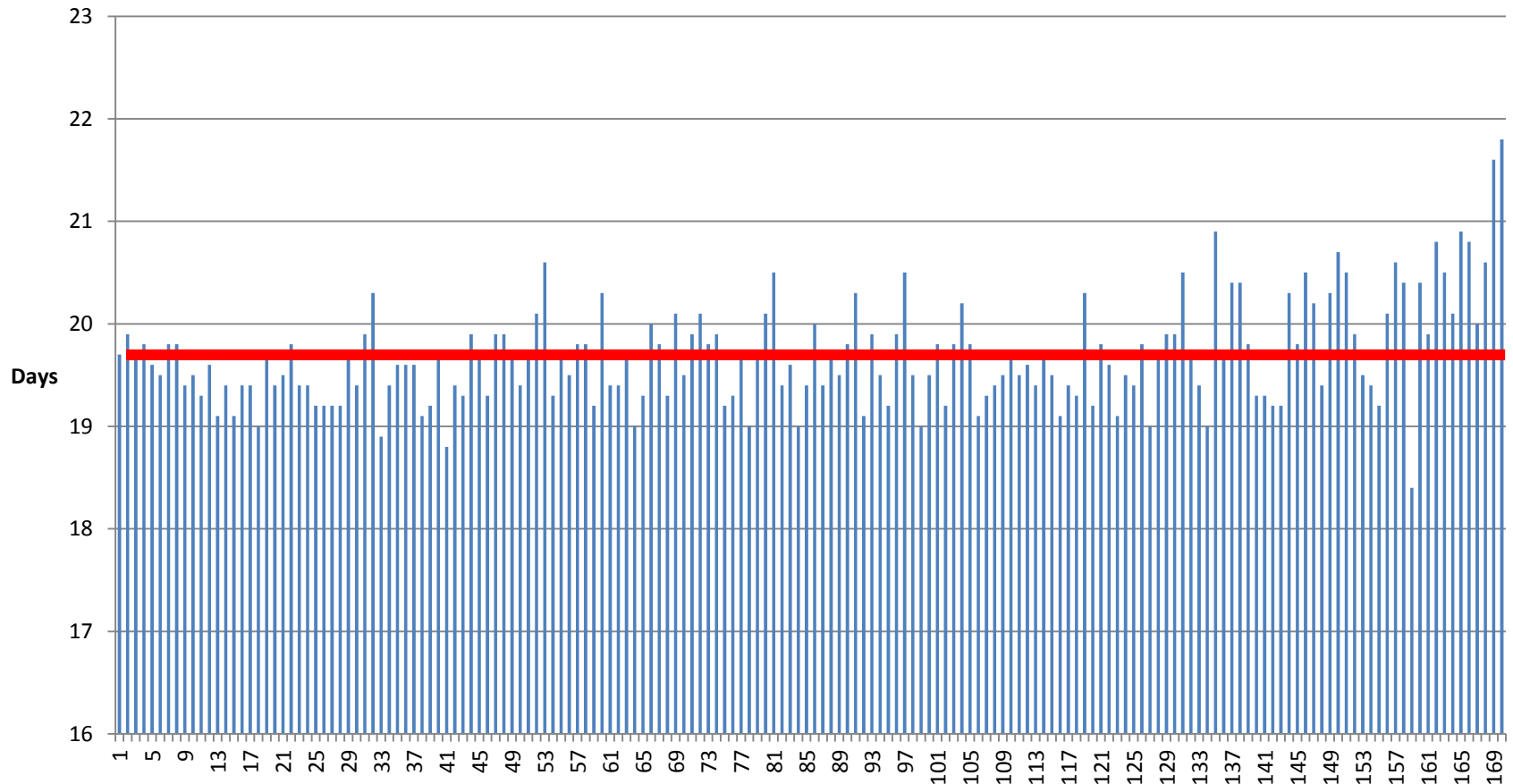
Mean LOS = 20.6 days

75% percentile 23.1 days

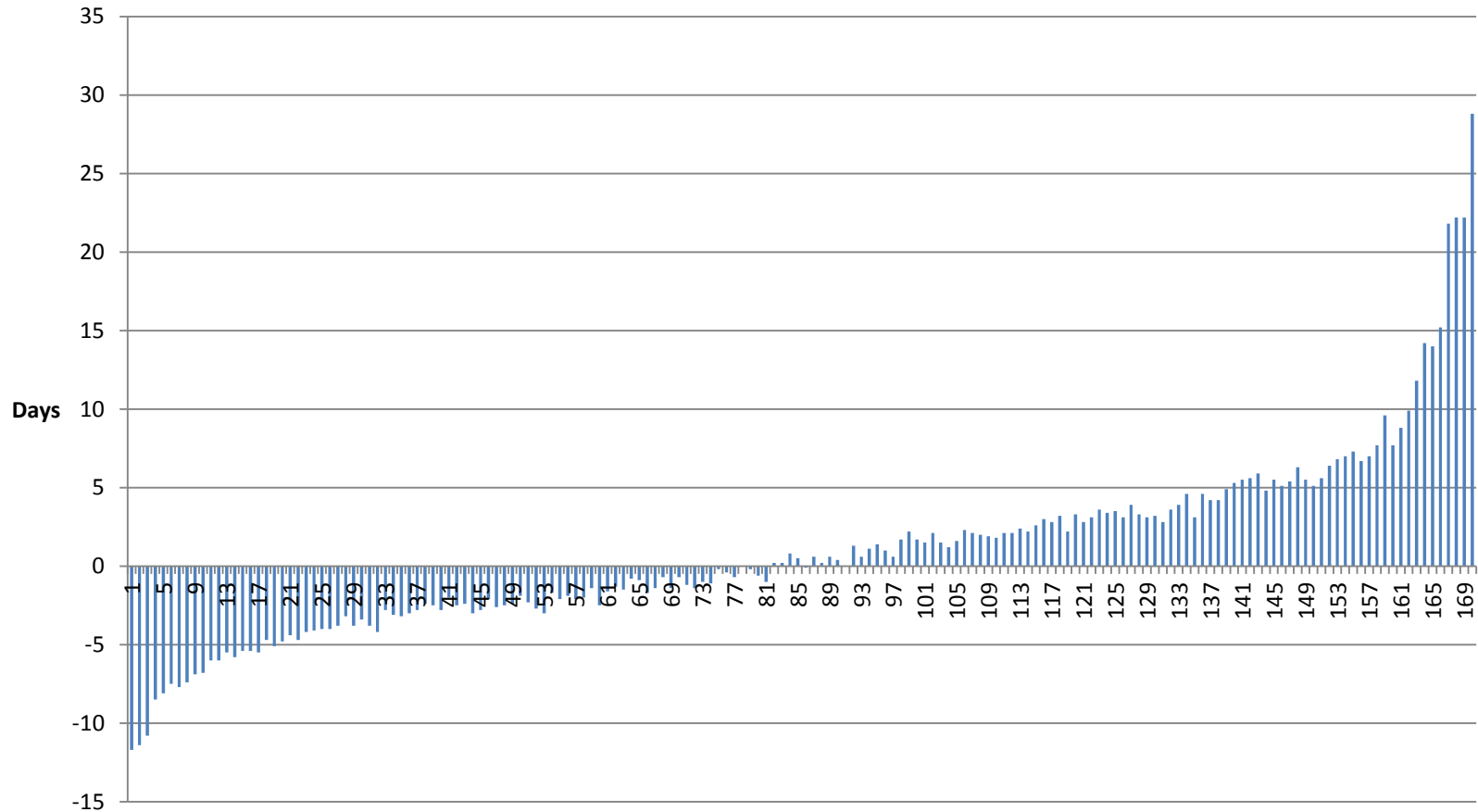


Results - Expected LOS in English hospitals for 2012/13 Q4 to 2013/14 Q3

Mean LOS 19.7 days



Results - Difference in Actual and Expected LOS in English hospitals for 2012/13 Q4 to 2013/14 Q3



Methodology - III

Modelling applied to evaluate number of bed days that could be saved if practice changed to ER principles if:

- Hospitals whose LOS was greater than the national mean LOS (20.6), reduced their LOS to this mean

and

- Hospitals whose LOS was greater than the 75% percentile LOS (23.1), reduced their LOS to this figure

Results - II

- If the 25% poorest performers improved their LOS to 23.1 days (LOS 75% percentile) then **37,905** bed days could be saved per year

Results - III

- If hospitals with LOS greater than 20.6 days (n=77) improved to a LOS = 20.6 days then **86,526** bed days could be saved per year

Conclusions

- FNoF most frequent emergency surgical pathway seen in most English hospitals
- Large variation in LOS
- Case-mixed adjusted data suggests due to practice and not patient case-mix
- Considerable improvements to quality and efficiency of care could be achieved if ER adopted in FNOF pathways

Thank you

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