HOW HOSPITALS CAN IMPROVE THE QUALITY OF CARE AND SAVE MONEY

Getting it Right First Time (GIRFT)
Lessons to be Learnt

The Kings Fund London June 22nd 2016
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Consultant Orthopaedic Surgeon RNOHT
National Director Clinical Quality and Efficiency NHS
Past President of the BOA
Background: The NHS in UK – “The Perfect Storm”

- Growing population – 60M in 2010 now 64M in 2014
- Ageing population – By 2030 33% >60 yrs. 15.3M >65 yrs by 2031
- Population living longer and expecting to remain active
- Increasing BMI – by 2050 60% men / 50% women will be obese.
- >65% patients admitted are 75 yrs age or greater

T and O – 33% of Surgical Workforce
T and O – 25-26% of ALL Surgical Interventions
Want to Remain Active

By 2031 – 15.3M >65yrs
12th NJR Annual Report - 2015

THR/TKR
47,000 in 2004
181,000 in 2013

>200,000 in 2014

Each increasing by over 7% annually

Hip Revisions:
- 2009 → 2014: 7,478 → 8,925
  - 19.4% increase
- 2004 → 2014: 2,698 → 8,925
  - 231% increase

Knee Revisions:
- 2009 → 2014: 4,780 → 5,873
  - 22.9% increase
- 2004 → 2014: 1,221 → 5,873
  - 381% increase

HIPS:
- 711,765 primaries
- 80,042 revisions
  (+1,493 reoperations)

KNEES:
- 776,437 primaries
- 47,939 revisions
  (+1,378 reoperations)
World Debt – 29th April 2016

$ 058,623,075,188,350

CURRENT GLOBAL PUBLIC DEBT

COMPARE COUNTRY DEBT

United Kingdom
Public debt: $2,861,588,524,590
Public debt per person: $44,671.60
Population: 64,256,612
Public debt as % of GDP: 103.7%
Total annual debt change: 7.8%

Canada
Public debt: $1,740,107,103,825
Public debt per person: $48,960.54
Population: 35,704,426
Public debt as % of GDP: 85.0%
Total annual debt change: 4.0%

United States
Public debt: $15,991,183,606,557
Public debt per person: $50,093.38
Population: 321,909,289
Public debt as % of GDP: 93.6%
Total annual debt change: 9.9%
The NHS settlement for 2016-2017 has given the provider sector some breathing space but also challenges.

£3.8 billion additional funding from the Treasury, and the 1.06% inflation uplift together with only a 2% tariff efficiency factor (most providers were expecting 3.8%)

In real terms 1% per annum real terms increase funding next 5 years

Currently NHS 8.6% GDP By 2020 – NHS will run on 7% of GDP

The provider sector will need to critically look at itself: IMPROVE QUALITY, VARIATION, EVIDENCE BASE

TRANSFORMATION to maintain long term sustainability, requiring efficiency planning, and some centralisation of services across all sectors of provider provision
In reality...

CCGs under significant financial pressure

The pressure is on GPs **NOT** to refer increasing numbers of patients for Orthopaedic care

New Devon CCG deficit of £14.5 Million last year

New criteria “Urgent and Necessary measures”

Aim: Balance the books

* Requiring patients with a BMI over 35 to lose 5% of their weight or to get under BMI 35 before planned surgery
* Requiring patients to stop smoking for at least eight weeks before planned surgery
* Suspension of some types of shoulder surgery

This will dominate the health agenda

CCGs don’t know what they are buying

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Procedures of low clinical value

We need to find another way

Clinically led!!

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Demand Management – Rationing

De-commission services

Dr. Foster Annual Report
Professional responsibility – by clinicians in hospitals

Disproportionate Disadvantage
Each £1M savings = 200 Joint Replacement
London

Provision of Care is the Key

- Annual Health Budget £16 Billion
- £1 Billion into primary care
- £2 Billion into Mental Health
- £13 Billion spent in HOSPITALS (Providers)

- Provision of Care is 70-80% of the cost

- We as Clinicians need to make the changes to our practice
How do we justify this?

Grade 1V OA right Hip
Age at primary implantation - 65 years

Cost of Implant - £3500-£4,000
Cost of bearing/cup - £1300+
£5,000

Vertical cup
ASR bearing

Our Acetabular cup of Choice is Tantalum for all !!!!
Knee Arthroplasty

• Unicondylar Knee

Revision Rates at 7 yrs

PFR - > 20%
UNI >16%
TKR 3.81%
GIRFT Objectives - Peer to Peer and Clinically led

- Supporting the following in elective orthopaedic care:
  - Improved patient experience - **Quality**
  - Re-empowering clinicians
  - Improved patient safety
  - Better outcomes in terms of joint longevity, infection – SSI and acquired, complications, readmissions and mortality
  - Significant taxpayer savings from reduced complications; infection; readmissions; length of stay and litigation; better directed care pathways; reduction in loan kit costs; and introduction of evidence based procurement and procedure selection.
  - Grant £200,000 from SoS and MD NHS England
Data sources – 12 sets of data collected for each trust

- Data accumulation and collation is complete
- A comprehensive orthopaedic dashboard has been created for each provider. Data sources include:
  - NJR (disappointingly not all data is available by provider – e.g. Longevity/revision rate by different prosthesis/weight bearing surface etc)
  - HES
  - HSCIC
  - NHS Comparators
  - NHS Indicators
  - Productivity Metrics
  - PROMS
  - National data sources – waiting times etc
  - National Hip Fracture Database
  - NHS Litigation Authority
  - NHS Atlas of Variation
  - Arthritis Research UK Musculoskeletal Calculator

**UNIQUE Data Set For Each Trust**
Progress to Date - England

• Project began in May ‘13 Report published March 2015
• Over 98% of all trusts visited, voluntary - one refusal only
• >130 GIRFT visits 211 hospitals completed
• Team have travelled 18,000+ miles, met 1708 surgeons, met 435 managers,

Wales, NI and Scotland Also Reviewed
### Emerging Themes - Surgical site infections – 10 Trusts in same City

<table>
<thead>
<tr>
<th>Trust</th>
<th>Nos of Orthopaedic processes reported</th>
<th>% with infections – initial patient spell</th>
<th>% with infections – initial patient spell + readmission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust 1</td>
<td>349</td>
<td>1.43%</td>
<td>1.43%</td>
</tr>
<tr>
<td>Trust 2</td>
<td>116</td>
<td>1.72%</td>
<td>1.72%</td>
</tr>
<tr>
<td>Trust 3</td>
<td>809</td>
<td>1.11%</td>
<td>2.47%</td>
</tr>
<tr>
<td>Trust 4</td>
<td>685</td>
<td>0.58%</td>
<td>0.73%</td>
</tr>
<tr>
<td>Trust 5</td>
<td>156</td>
<td>3.85%</td>
<td>4.49%</td>
</tr>
<tr>
<td>Trust 6</td>
<td>2657</td>
<td>0.68%</td>
<td>1.05%</td>
</tr>
<tr>
<td>Trust 7</td>
<td>454</td>
<td>0.00%</td>
<td>0.22%</td>
</tr>
<tr>
<td>Trust 8</td>
<td>544</td>
<td>1.47%</td>
<td>2.21%</td>
</tr>
<tr>
<td>Trust 9</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Trust 10</td>
<td>521</td>
<td>0.00%</td>
<td>0.19%</td>
</tr>
</tbody>
</table>

0.19% - 4.49%
Setting Standards
Patient Outcomes - Cost of Infection

• **Prevention**
  - SOHs – infection rate THR/TKR = 0.2%
  - National Infection rate = 1- 5%

• **Treatment**
  - Average cost £75,000- £100,000
  - Hidden costs – loan kit £1000 – £9,000 + per case

• Savings to NHS annually = £200- £300million per annum
• Up to 60,000 joint replacements
Total Knee Replacements within 1 year of Arthroscopy (%)
Timeframe: 1 Jan 09 to 31 Dec 11 (TKRs: 1 Jan 09 to 31 Dec 12)
(Patients aged 60 and over)

Source: NEQOS Trauma & Orthopaedic dashboard
Why The Difference?

Total number of arthroscopic procedures in 60-74 year olds

- **Scotland**
- **England**

![Graph showing the total number of arthroscopic procedures in 60-74 year olds from 2000 to 2013 for Scotland and England.](image-url)
### Low Volumes - Hip – 12 month surgeon profile (205 hospitals)

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Operations*</th>
<th>Total Surgeons</th>
<th>Average*</th>
<th>National Average</th>
<th>Nos of surgeons conducting &lt;6 (%)</th>
<th>Nos of surgeons conducting &lt;11 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hip Primary</td>
<td>69,057</td>
<td>1,336</td>
<td>52</td>
<td>51</td>
<td>220 (16%)</td>
<td>327 (24%)</td>
</tr>
<tr>
<td>Hip Revision</td>
<td>10,107</td>
<td>735</td>
<td>14</td>
<td>12</td>
<td>340 (46%)</td>
<td>450 (61%)</td>
</tr>
</tbody>
</table>

Source: NHS Choices website, 2012 data.

Note: Not all consultants have consented to releasing this data. If this is the case for the Trust, then the values above may under-represent the true values for the Trust. A full listing of the consultants who have not consented, and their reasons for doing so can be found at the NHS Choices website.

* To create totals those with a note of <5 are counted as 5, this may impact on the average number per surgeon, the notes section will be used to identify when this has occurred.
## Knees – 12 month surgeon profile (205 Hospitals)

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Operations*</th>
<th>Total Surgeons</th>
<th>Average Ops per surgeon</th>
<th>Nos of surgeons conducting 5 or fewer (%)</th>
<th>Nos of surgeons conducting 10 or fewer (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Knee</td>
<td>80299</td>
<td>1675</td>
<td>47.9</td>
<td>109 (6.5%)</td>
<td>263 (15.7%)</td>
</tr>
<tr>
<td>Unicondylar Knee Replacement</td>
<td>7068</td>
<td>719</td>
<td>9.8</td>
<td>352 (49%)</td>
<td>535 (74.4%)</td>
</tr>
<tr>
<td>Patello-Femoral Replacement</td>
<td>1304</td>
<td>390</td>
<td>3.3</td>
<td>313 (80.3%)</td>
<td>369 (94.6%)</td>
</tr>
<tr>
<td>Knee Revision</td>
<td>6309</td>
<td>1011</td>
<td>6.3</td>
<td>531 (53.0%)</td>
<td>818 (81.7%)</td>
</tr>
</tbody>
</table>

Source: NHS Choices website, 2012 data. (%)

Note: Not all consultants have consented to releasing this data. If this is the case for the Trust, then the values above may under-represent the true values for the Trust. A full listing of the consultants who have not consented, and their reasons for doing so can be found at the NHS Choices website.

* To create totals those with a note of <5 are counted as 5, this may impact on the average number per surgeon.
Low volumes of specialist activity

- Average 21 shoulder replacements per trust (increased by 8 higher volume specialist centres) Usually 6 at most centres
- Average 4 elbow replacements (increased by 11 higher volume centres)
- Average 4 ankle replacements (increased by 11 higher volume specialist centres – generally less than 2 at most trusts)
- Average 59 spinal fusions (increased by 15 higher volume specialist centres).
Changing surgeon behaviour – Evidence based

Figure 3.1
Risk of revision following primary hip replacement (cumulative hazard with 95% confidence intervals), by prosthesis type.

- Cemented THR – 54% in 2005 reducing to 36% in 2010
- Cementless THR – 22% in 2005 increasing to 43% in 2010

35% <65 yrs, 12% <55 yrs

Primary THR procedures 2005 and 2010

22,000 - £6.7 Million
42,000 - £80+ Million

We need to change consultant behaviour
Commercial company driven, New technologies
Is there a need for more robust national guidance on cement?

Cemented vs Uncemented across Manchester

NB – not part of confidential NJR dataset
Measuring Outcomes - NJR

Funnel plot for hips
>45 trusts above 95%

Funnel plot for knees
>48 trusts above 95%

RNOHT REVISION RATE AT FIVE YEARS
THR - 0.64% (2.14%)
TKR – 0.55% (2.37%)

Must have level playing field
Country Borough of Teeside
(red line indicates boundary)

North Tees Hospital
Catchment
Population 226,798

South Tees Hospital
Catchment
Population 523,256
## North and South Tees LAT Analysis (GIRFT)

### Spinal

<table>
<thead>
<tr>
<th></th>
<th>North Tees And Hartlepool (FT)</th>
<th>South Tees Hospitals (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>226,798</td>
<td>523,256</td>
</tr>
<tr>
<td>Epidural</td>
<td>691</td>
<td>245</td>
</tr>
<tr>
<td>Facet joint</td>
<td>924</td>
<td>304</td>
</tr>
<tr>
<td>Injection into joint</td>
<td>132</td>
<td>49</td>
</tr>
<tr>
<td>Nerve root</td>
<td>243</td>
<td>529</td>
</tr>
<tr>
<td>Others</td>
<td>111</td>
<td>63</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2101</strong></td>
<td><strong>1190</strong></td>
</tr>
</tbody>
</table>

### Disc and Fusion

<table>
<thead>
<tr>
<th></th>
<th>North Tees And Hartlepool (FT)</th>
<th>South Tees Hospitals (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>226,798</td>
<td>523,256</td>
</tr>
<tr>
<td>Anterior lumbar fusion (+/- decompression)</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Cervical spine: decompression (+/- fusion)</td>
<td>95</td>
<td>133</td>
</tr>
<tr>
<td>Lumbar decompression discectomies (without fusion)</td>
<td>140</td>
<td>527</td>
</tr>
<tr>
<td>Primary posterior lumbar fusion (+/- decompression)</td>
<td>116</td>
<td>65</td>
</tr>
<tr>
<td>Revision lumbar decompression</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Revision lumbar fusion (+/- decompression)</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>365</strong></td>
<td><strong>772</strong></td>
</tr>
</tbody>
</table>

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Following visit trusts now working together MDT  
Note: Using Commissioning Spinal Services - getting the service back on track definitions
Spinal and Back Procedures (London) – Volumes and Outcomes

National Spinal Registry
Mandated by CCGs for 5 years
15% of data inputted only
Cost of Orthopaedic litigation

### 28 possible reasons for litigation

**Top Four**
- Judgement
- Tissue damage
- Procedure
- Unsatisfactory outcome

All are preventable

Proposed solution will resolve this

In last three years Increasing by £30+Million per annum

<table>
<thead>
<tr>
<th>Year</th>
<th>Sum of Total Claim Including estimates from open cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003/04</td>
<td>£39,980,162</td>
</tr>
<tr>
<td>2004/05</td>
<td>£43,395,770</td>
</tr>
<tr>
<td>2005/06</td>
<td>£54,334,653</td>
</tr>
<tr>
<td>2006/07</td>
<td>£71,825,431</td>
</tr>
<tr>
<td>2007/08</td>
<td>£86,994,244</td>
</tr>
<tr>
<td>2008/09</td>
<td>£107,178,959</td>
</tr>
<tr>
<td>2009/10</td>
<td>£117,264,011</td>
</tr>
<tr>
<td>2010/11</td>
<td>£149,151,164</td>
</tr>
<tr>
<td>2011/12</td>
<td>£187,087,311</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£857,211,705</strong></td>
</tr>
</tbody>
</table>

Data from NHS LA

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**In 2010 NHS litigation potential liability** £15.5 billion
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**In 2013 - >£23 billion potential liability**
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**In 2011-2012 NHSLA paid out** £863M
---

**2012-2013 - £1.2 Billion**
## Litigation data – 10 Trusts same City *(trust number not shown)*

<table>
<thead>
<tr>
<th>Claims in 2011/12</th>
<th>Estimated Cost of claims during 2011/12</th>
<th>Estimated Cost per Orthopaedic Spell</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>12</td>
<td>£1,214,315</td>
<td>£99.28</td>
</tr>
<tr>
<td>5</td>
<td>£661,890</td>
<td>£41.55</td>
</tr>
<tr>
<td>3</td>
<td>£472,500</td>
<td>£50.56</td>
</tr>
<tr>
<td>6</td>
<td>£945,000</td>
<td>£43.04</td>
</tr>
<tr>
<td>10</td>
<td>£1,418,375</td>
<td>£36.47</td>
</tr>
<tr>
<td>7</td>
<td>£1,102,500</td>
<td>£60.27</td>
</tr>
<tr>
<td>29</td>
<td>£3,987,113</td>
<td>£134.90</td>
</tr>
<tr>
<td>8</td>
<td>£644,655</td>
<td>£31.13</td>
</tr>
<tr>
<td>16</td>
<td>£2,090,698</td>
<td>£50.39</td>
</tr>
</tbody>
</table>

**National average cost per orthopaedic spell is £54.42**

* Permission from trust not given to access this data.

**Judgement**

- Tissue damage
- Procedure
- Unsatisfactory Outcome
Procurement. What are we buying and paying?

Primary Hip – Total Implant Cost

<table>
<thead>
<tr>
<th>Price</th>
<th>MoP</th>
<th>CoP</th>
<th>CoC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>£1026 ($2000)</td>
<td>£1495</td>
<td>£1674</td>
</tr>
<tr>
<td>Mean</td>
<td>£1068 ($2136)</td>
<td>£1488</td>
<td>£1781</td>
</tr>
<tr>
<td>Min</td>
<td>£438 ($876)</td>
<td>£513</td>
<td>£1062</td>
</tr>
<tr>
<td>Max</td>
<td>£4902 ($9804)</td>
<td>£3872</td>
<td>£4519</td>
</tr>
</tbody>
</table>

Loan Kit Costs
Average £200,000
Maximum £750,000

Volume not reflected in cost in 90% of cases
### Anonymised Trust

#### Orthopaedic activity – Primary and revision THR and TKR

<table>
<thead>
<tr>
<th>Metric</th>
<th>Period</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Hip replacement</td>
<td>2013/14</td>
<td>513</td>
</tr>
<tr>
<td>Revision Hip Replacement</td>
<td>2013/14</td>
<td>84</td>
</tr>
<tr>
<td>Primary Knee Replacement</td>
<td>2013/14</td>
<td>636</td>
</tr>
<tr>
<td>Revision knee replacement</td>
<td>2013/14</td>
<td>56</td>
</tr>
</tbody>
</table>

- **84**: 15 surgeons, 33% <5 per annum
<table>
<thead>
<tr>
<th>LOT</th>
<th>FRAMEWORK CATEGORY</th>
<th>Supplier</th>
<th>Band</th>
<th>Trust Original Spend</th>
<th>Spend Direct CPP</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>PRIMARY HIPS</td>
<td>JRI</td>
<td>2</td>
<td>£102,270.80</td>
<td>£106,097.00</td>
<td>£3,826.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DePuy Synthes</td>
<td>10</td>
<td>£432,526.05</td>
<td>£459,502.66</td>
<td>£26,976.61</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mathys</td>
<td>1</td>
<td>£55,665.74</td>
<td>£46,557.15</td>
<td>-£9,108.59</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stryker</td>
<td>3</td>
<td>£181,011.80</td>
<td>£178,867.12</td>
<td>-£2,144.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zimmer</td>
<td>1</td>
<td>£21,757.57</td>
<td>£24,795.00</td>
<td>£3,037.43</td>
</tr>
</tbody>
</table>

Band 1
most expensive
Band 12
Cheaper

<table>
<thead>
<tr>
<th>LOT</th>
<th>FRAMEWORK CATEGORY</th>
<th>Supplier</th>
<th>Band</th>
<th>Trust Original Spend</th>
<th>Spend Direct CPP</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>1REVISION HIPS</td>
<td>Zimmer</td>
<td>1</td>
<td>£31,220.54</td>
<td>£35,275.00</td>
<td>£4,054.46</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JRI</td>
<td>1</td>
<td>£2,585.00</td>
<td>£2,436.00</td>
<td>-£149.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DePuy Synthes</td>
<td>3</td>
<td>£69,413.21</td>
<td>£75,903.41</td>
<td>£6,490.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stryker</td>
<td>2</td>
<td>£72,902.80</td>
<td>£5,851.00</td>
<td>£22,948.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zimmer</td>
<td>1</td>
<td>£1,449.47</td>
<td>£1,645.00</td>
<td>£195.53</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOT</th>
<th>FRAMEWORK CATEGORY</th>
<th>Supplier</th>
<th>Band</th>
<th>Trust Original Spend</th>
<th>Spend Direct CPP</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4</td>
<td>HEMIARTHROPLASTY</td>
<td>JRI</td>
<td>4</td>
<td>£89,647.00</td>
<td>£64,439.00</td>
<td>£25,208.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DePuy Synthes</td>
<td>4</td>
<td>£9,505.00</td>
<td>£2,708.10</td>
<td>-£6,796.90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stryker</td>
<td>1</td>
<td>£3,850.00</td>
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<td>Zimmer</td>
<td>1</td>
<td>£492.00</td>
<td>£820.00</td>
<td>£328.00</td>
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<table>
<thead>
<tr>
<th>LOT</th>
<th>FRAMEWORK CATEGORY</th>
<th>Supplier</th>
<th>Band</th>
<th>Trust Original Spend</th>
<th>Spend Direct CPP</th>
<th>Variance</th>
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<tbody>
<tr>
<td>2</td>
<td>KNEES</td>
<td>DePuy Synthes</td>
<td>1 &amp; 5</td>
<td>£270,957.40</td>
<td>£319,052.02</td>
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<td>Stryker</td>
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<td>£339,053.92</td>
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<td>Microport</td>
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<td>£44,485.00</td>
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<th>Trust Original Spend</th>
<th>Spend Direct CPP</th>
<th>Variance</th>
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<tbody>
<tr>
<td>2.1</td>
<td>PRIMARY KNEES</td>
<td>DePuy Synthes</td>
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<td>£38,730.90</td>
<td>£44,902.45</td>
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<td>£138,936.57</td>
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<th>LOT</th>
<th>FRAMEWORK CATEGORY</th>
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<th>Trust Original Spend</th>
<th>Spend Direct CPP</th>
<th>Variance</th>
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<tbody>
<tr>
<td>2.4</td>
<td>PARTIAL KNEE FIXED BEARING</td>
<td>Zimmer</td>
<td>6</td>
<td>£10,021.41</td>
<td>£8,938.09</td>
<td>-£1,083.32</td>
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Grand Total

<table>
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<tr>
<th>Lot</th>
<th>Framework Category</th>
<th>Total Cost</th>
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<tbody>
<tr>
<td>Lot 1</td>
<td></td>
<td>£2,082,684.78</td>
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<tr>
<td>Lot 2</td>
<td></td>
<td>£2,126,752.79</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>£44,068.01</strong></td>
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</tbody>
</table>

Low volume is high cost
Hugh Variation in Cost of Spinal Implants
>10,000 products available within spinal catalogues for hospitals

Screws - £32 - £600 – mono/poly  nut included?

Rods (static and dynamic) - £72 - £1,066

Cages and Spacers - £26 - £3,200 diverse ar

Plates £22-£1,583

1cc of artificial bone graft to fill the c-spine cages with ranges frc

Comparisons across suppliers difficult as systems not being of standard design
Loss of Morale/Disengagement

Loss of Morale is a serious problem in some trusts. Results in disengagement and conflict

The lack of ring fenced orthopaedic beds, and in some cases ring fenced orthopaedic theatres/theatre staff – is undermining good practice and is often experienced as a lack of commitment to the service by management.

Top down management is NOT working

Shoulder to shoulder is working

GIRFT and Ring Fenced beds

40% of trusts NO true ring fenced beds

Trust 1  Loss of “Ring fenced beds” during winter.
10 infected Knee/Hip Replacements during this period

Trust 2  “Ring fenced beds” breached by “clean surgical patients ENT”
Increased incidence of streptococcus wound infections in TKR/THR
Currently up to 30% of patients occupying acute beds in the provider network are ready to be discharged, their medical or surgical condition treated. These "bed blockers" occupy beds costing £675 per day to staff and run.

Reduce Admissions
Specialist clinics in community
Senior clinical assessment in A&E – Fife Consultant Surgeon on-call in hospital.
Surgical admissions reduced by 30%

Increase Early Discharge
Enhanced Recovery Programme
Hospital at home / SWOT Warwickshire
Step down/Rehabilitation Beds – local / network

£2 million funding
First NHS Veterans Rehab Unit
Open to all NHS patients
Acute bed £675/day
Rehab bed £200/day
What did the GIRFT Pilot in Orthopaedics tell us?

• **Huge variations** in practice and outcomes in terms of device and procedure selection, clinical costs, infection rates, readmission rates, and litigation rates.

• **Scope to tackle many of these variations** and drive short, medium and longer-term improvements in quality of delivery (through adopting best practice), reducing supplier costs (for example of implants) and generating savings, for example from reduced readmission and re-operation rates.

• **Many of the answers are already out there**

• **There is no consensus as to what constitutes best practice** in areas of activity where there is no NICE or formal guidance from the BOA or other professional sub-specialty association. This provides a significant opportunity to drive efficiency.
Knee Length of Stay Trend

Increase in numbers of patients discharged Within 4 days
Primary Hip Replacement
Length of Stay - 2012/13
Primary Hip Replacement Length of Stay - 2014/15

Re visit – Top 25% Trusts
Re visit- Bottom 25%
Hip fixation trend in the over 65s
30 day readmissions all orthopaedics
Results of the GIRFT Pilot in Orthopaedics

- Cost - £250,000 Grant from NHS England and DH
- Length of stay
- Use of Cemented implants – patients70+
- Ring Fenced beds
- Reduction loan kit costs
- Reduction in costs of THR and TKR
- Reduction in arthroscopy rates
- Low volume surgeons changing practice
- Savings to date - £60-£90 Million

Improved Quality of Care
Reduction of complications
Implementation Support from the Profession

GIRFT implementation steps:

• We will be sending to all Trusts in England the latest version of the GIRFT dashboard, with updated data

• The British Orthopaedic Association (BOA) has issued detailed implementation guidance.

• The BOA strongly encourages individual surgeons to share their personal National Joint Registry activity and outcome data with colleagues, as well as their appraiser and CD.

• In addition to the implementation guidance, the BOA has also produced a position statement on data transparency.

• It places a focus on clinical leadership responsibility on the CD

• Revisits top 25% and bottom 25%

• BOA Hospital visits coordinated with GIRFT Team

• Support from: Prof. Howie Immediate Past President
  Mr. Tim Wilton President of BOA
Networks / Hub & Spoke Model

STANDARDS

"Getting it right first time" - Pilot orthopaedics in England

- Critical Mass of Specialists
  - One site Specialist Units
- Networks
- "Ring fenced elective beds"
- Dedicated theatres
- MDT working
- Range of models/networks

Clinical Reference Group for Specialised Orthopaedics

- Defines specialist units and centres
- Minimum numbers
- Gold standard
- Infection rate <1%
- Audit
- Robust Review of outcomes

Improving quality
Improving training
Elderly population not disadvantaged
Patients will feel safe
Significant savings

GETTING IT RIGHT FIRST TIME
Improving the Quality of Orthopaedic Care within the National Health Service in England

Examples

Leicester
Guys
Northern

Fewer Centres
Collect the data
Change the Tariff
Eg. MTCs

30-40 Units
London 5-6

Improving quality
Improving training
Elderly population not disadvantaged
Patients will feel safe
Significant savings
Leicester 2012

GLENFIELD
(Elective)
OPD & Diagnostics Only

3 Theatres
33 Consultants
3 Wards

ROYAL INFIRMARY
(Trauma, Paeds & Sarcoma)
3 Theatres
25 Consultants
3 Wards

GENERAL
(Elective)
7 Theatres
33 Consultants
3 Wards
Key outcomes of the programme

Supporting delivery of the Five Year Forward View:
“NHS gets infrastructure and operating investment to rapidly move to new care models and ways of working leading to bigger efficiency gains worth 2-3% per year, combined with staged funding increases will close the £30bn gap in full”

- Delivering a clinically-led, provider-side focused catalyst for:
  - Improvements in quality and reductions in costs.
  - Informing the setting up and/or enhancing of robust clinical networks.
  - Supporting the direction of travel being developed by the Clinical Reference Groups who guide specialised commissioning within NHS England.
  - Enhancing the quality and consistency of care. This will provide reassurance to CCGs that what they purchase will be consistent across England and of the highest quality and at the most effective price.
  - Tackling price variations of medical devices to reduce cost and assure efficient and sustainable supply.

The KEY: The Orthopaedic Dashboard
Mirroring the CQC data domains

<table>
<thead>
<tr>
<th>Metric name</th>
<th>Period</th>
<th>Value</th>
<th>Peer mean</th>
<th>National mean</th>
<th>Variation chart</th>
<th>Trend chart (quarterly)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are at least 10% of your spinal cases entered into the British Spine Registry</td>
<td>2013/14</td>
<td>No D.</td>
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<tr>
<td>% daycase all arthroscopy procedures</td>
<td>2013/14</td>
<td>No D.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% daycase knee ligament reconstruction (open or arthroscopic)</td>
<td>2013/14</td>
<td>No D.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% daycase arthroscopic meniscal operations</td>
<td>2013/14</td>
<td>No D.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% daycase arthroscopic shoulder subacromial decompression</td>
<td>2012/13</td>
<td>11.33%</td>
<td>53.72%</td>
<td>64%</td>
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<tr>
<td>% daycase arthroscopic shoulder rotator cuff repair</td>
<td>2012/13</td>
<td>13.38%</td>
<td>54.05%</td>
<td>64.98%</td>
<td></td>
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<tr>
<td>% daycase other arthroscopic shoulder joint</td>
<td>2013/14</td>
<td>50%</td>
<td>81.38%</td>
<td>77.59%</td>
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<td>All orthopaedics activity, total activity per 100,000, elective</td>
<td>2013/14</td>
<td>656.17</td>
<td>781.81</td>
<td>901.02</td>
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<tr>
<td>Proximal hip replacement, total activity per 100,000, elective</td>
<td>2013/14</td>
<td>9.43</td>
<td>12.62</td>
<td>16.54</td>
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<td>Distal hip replacement, total activity per 100,000, elective</td>
<td>2013/14</td>
<td>134.18</td>
<td>148.59</td>
<td>183.45</td>
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<tr>
<td>Knee ligament reconstruction (open or arthroscopic), total activity per 100,000, elective</td>
<td>2013/14</td>
<td>8.69</td>
<td>8.89</td>
<td>11.39</td>
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<tr>
<td>Other knee joint arthroscopy, total activity per 100,000, elective</td>
<td>2013/14</td>
<td>150.06</td>
<td>202.8</td>
<td>214.14</td>
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<td>Shoulder rotator cuff repair (open or arthroscopic), total activity per 100,000, elective</td>
<td>2013/14</td>
<td>17.01</td>
<td>9.27</td>
<td>14.28</td>
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<td>Shoulder subacromial decompression (open or arthroscopic), total activity per 100,000, elective</td>
<td>2013/14</td>
<td>65.77</td>
<td>61</td>
<td>77.08</td>
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<tr>
<td>% patients waiting fewer than 15 weeks, admitted pathway</td>
<td>2015</td>
<td>87.78%</td>
<td>76.45%</td>
<td>83.6%</td>
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<td>Mean waiting time (in weeks), admitted pathway</td>
<td>2015</td>
<td>12.77</td>
<td>14.38</td>
<td>13.13</td>
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<tr>
<td>Mean waiting time (in weeks), non-admitted pathway</td>
<td>2015</td>
<td>8.71</td>
<td>8.52</td>
<td>7.5</td>
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<tr>
<td>% patients waiting fewer than 18 weeks, non-admitted pathway</td>
<td>2015</td>
<td>94.28%</td>
<td>92.03%</td>
<td>94.34%</td>
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<tr>
<td>Number of orthopaedic surgeons per 100,000 population</td>
<td>2013/14</td>
<td>No D.</td>
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Categories of evaluation - is this provider:
- Caring?
- Safe?
- Effective?
- Response?
- Well led?
- And does it make good use of its resources?
### Mirroring the CQC data domains

#### Effective

<table>
<thead>
<tr>
<th>Metric name</th>
<th>Period</th>
<th>Value</th>
<th>Peer mean</th>
<th>National mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary elbow replacement, length of stay (days), elective</td>
<td>2013/14</td>
<td>2.33</td>
<td>3.1</td>
<td>3.07</td>
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<td>Revisinal elbow replacement, length of stay (days), elective</td>
<td>2013/14</td>
<td>3</td>
<td>4.5</td>
<td>3.6</td>
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<tr>
<td>Revisinal shoulder replacement, length of stay (days), elective</td>
<td>2013/14</td>
<td>2.82</td>
<td>4.15</td>
<td>4.03</td>
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<td>Wrist replacement, length of stay (days), elective</td>
<td>2013/14</td>
<td>0.5</td>
<td>0.67</td>
<td>1.33</td>
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<tr>
<td>ShMI (Summary Hospital-level Mortality Indicator)</td>
<td>2014/15</td>
<td>96.57</td>
<td>98.91</td>
<td>100</td>
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<tr>
<td>ShMI - All musculoskeletal diagnosis</td>
<td>2014</td>
<td>101.22</td>
<td>102.11</td>
<td>100</td>
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<tr>
<td>ShMI - Spine with complications from surgical procedure or medical care</td>
<td>2014</td>
<td>153.35</td>
<td>95.89</td>
<td>100</td>
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<tr>
<td>30 day emergency readmissions - All orthopaedics</td>
<td>2013/14</td>
<td>No D.</td>
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<tr>
<td>30 day emergency readmissions - Primary hip</td>
<td>2013/14</td>
<td>No D.</td>
<td></td>
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<tr>
<td>30 day emergency readmissions - Primary knee</td>
<td>2013/14</td>
<td>No D.</td>
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<tr>
<td>% of hip replacement operations resulting in long term wound infection at 1 year</td>
<td>2013/14</td>
<td>No D.</td>
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<tr>
<td>% of knee replacement operations resulting in long term wound infection at 1 year</td>
<td>2013/14</td>
<td>No D.</td>
<td></td>
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<tr>
<td>Hip arthroplasty or open reduction of femur following admission for fractured neck of femur,</td>
<td>2013/14</td>
<td>18.21</td>
<td>17.96</td>
<td>19.54</td>
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<tr>
<td>LoS days for patients with KNOF (arthroplasty or open reduction) &gt;75</td>
<td>2013/14</td>
<td>No D.</td>
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<tr>
<td>Primary hip replacement, length of stay (days), elective</td>
<td>2013/14</td>
<td>6.43</td>
<td>5.07</td>
<td>5.01</td>
</tr>
<tr>
<td>Revisinal hip replacement, length of stay (days), elective</td>
<td>2013/14</td>
<td>11.93</td>
<td>8.35</td>
<td>8.89</td>
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<td>Primary knee replacement, length of stay (days), elective</td>
<td>2013/14</td>
<td>6.13</td>
<td>4.9</td>
<td>4.96</td>
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<tr>
<td>Revisinal knee replacement, length of stay (days), elective</td>
<td>2013/14</td>
<td>9.64</td>
<td>9.18</td>
<td>8.64</td>
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<tr>
<td>Knee ligament reconstruction (open or arthroscopic), length of stay (days), elective</td>
<td>2013/14</td>
<td>1.38</td>
<td>0.83</td>
<td>0.8</td>
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<td>Shoulder rotator cuff repair (open or arthroscopic), length of stay (days), elective</td>
<td>2013/14</td>
<td>1.26</td>
<td>0.84</td>
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<td>Shoulder subacromial decompression (open or arthroscopic), length of stay (days), elective</td>
<td>2013/14</td>
<td>0.97</td>
<td>0.45</td>
<td>0.39</td>
</tr>
</tbody>
</table>

#### Trend chart (quarterly)

- Refresh 6 monthly
- Refresh 3 monthly
- Real Time
- Transparency
Where Next: Clinically-led Quality and Efficiency programme - GIRFT 2

- Elective Orthopaedics – implementation solutions
- Emergency General Surgery
- Spinal Surgery
- Vascular surgery
- Urology
- Ophthalmology
- Cardiothoracic
- Oral and Maxillofacial
- Neurosurgery
- Gynaecology & Obstetrics
- Paediatric Surgery
- Ear Nose and Throat (ENT)
- Plastics
- Breast Surgery
- Dentistry
- General Medicine (Acute)
- Respiratory
- Cardiology
- Intensive care medicine
- Gastroenterology
- Diabetes and Endocrinology
- Emergency medicine
- Radiology/Imaging
- Outpatients

3 year programme
£2.55M
Now fastracked

Medical/Surgical Productivity Efficiency

Prof. Tim Briggs
Prof. Tim Evans
To maintain timely care with ageing and financial austerity we must: “Get it Right First Time”

• WE ALL HAVE THE SAME PROBLEM
• Accumulate and follow the WORLD evidence - transparency
• Must do things differently – change behaviour LOW VOLUMES
• Re-empower clinicians, environment “Ring fenced beds”
• Reduce variation in practice – COMPLEX CASES
• Appropriate selection of patients for right procedure
• Implants – outcome and cost
• Maximise outcome
• Reduce complications – infection
• Litigation – contain and reduce

Outcome: - Improving Care, Reducing Unwanted Variation, Best Value