United Lincolnshire Hospitals NHS Trust

To:	Trust Board
From:	Mark Brassington
Date:	25th March 2019
Healthcare Standard	NA

Title:	Trauma and Orthopaedic Trial update

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Responsible Director/s: Mark Brassington, COO

Purpose of the Report:

Provide an update following the implementation of the Trauma & Orthopaedic trial.

The Report is provided to the Board for:

Information	X	Assurance	X
Decision			

Summary/Key Points:

The T&O Trial went live on 20Th August 2018. Working practices are embedding with an improvement against Key metrics as can be evidenced within the report.

The team are working on extending the trial until 31st March 2020 which will include undertaking a consultation with staff with a view to extending theatre operating time to maximise the opportunity of achieving up to 5 elective cases per session during the extended trial and completing job plan reviews to align all activity in 2019/20 to the required ways of working to achieve a further increase in elective activity at Grantham.

Recommendations:

Trust Board is asked to note the contents of this report and ongoing work to further deliver on the ambitions of the trial. Oversight to be via the FEP.

Strategic Risk Register	**Performance KPIs year to date**

Resource Implications (eg Financial, HR)

Financial, reputation, estates, procurement

Assurance Implications

GIRFT, quality, safety
Patient and Public Involvement (PPI) Implications: Communication
Equality Impact : Full QIA and EIA completed and signed off by Medical Director
Information exempt from Disclosure: No
Requirement for further review? Yes

Contents

This Board paper is structured into seven sections as follows:

This paper also includes three appendices as follows:

1.0 Background

At the Trust Board meeting held on 5 February 2019, a paper entitled 'Trauma and Orthopaedic (T&O) trial update' was presented by the Chief Operating Officer. The discussions held recognised the improvements made to date and the Trust Board agreed, in principle to continue with its support of the project for the next 12 months. The purpose of this paper is to provide the Trust Board with a more comprehensive evaluation of the T&O trial including a greater focus on:

- Patient experience and staff feedback
- The financial benefits and potential future efficiency opportunities
- The metrics to measure progress and future success criteria

This paper has been developed with the support from the local Getting It Right First Time (GIRFT) Implementation Team using information taken from various sources to enhance the original Board paper[1].

2.0 Contextual information

GIRFT is a national programme, created and led by consultant orthopaedic surgeon Professor Tim Briggs, working with leading frontline clinicians to identify and reduce unwarranted variations in service delivery and clinical practice. The programme aims to improve quality of medical and clinical care within the NHS through deeper insight of performance, informed by data analysis across a range of metrics.

GIRFT is piloting a 'hot' (emergency/unplanned care) and 'cold' (elective/planned care) site' plan for T&O at eight hospital trusts across the country. The plans centralise elective care on one site with emergency care on another. Evidence from the early pilot site has shown a number of benefits achieved to date including:

- Reduced length of stay
- Reduced cancellation rates
- Reduced infection rates
- Reduced waiting times
- Increased capacity of emergency beds making A&E more efficient[2]

United Lincolnshire Hospitals NHS Trust ('the Trust) volunteered to be involved with the GIRFT pilot given the high level of patient benefits, which could be achieved. The Trust was part of Phase 2, which included three other trusts (King's College London, East Kent and Royal Cornwall).

[1] Information sources: Trust activity information, GIRFT procurement portal and GIRFT data from other Hot and Cold pilot sites.
[2] Benefits identified from the Gloucestershire Hospitals NHS Foundation Trust pilot work.

Before starting the pilot, the Trust faced a number of fundamental clinical, operational and financial challenges with its T&O services. The T&O services operated across four hospital sites at Lincoln, Grantham, Pilgrim and Louth with performance being suboptimal, poor patient satisfaction with inefficient services. The orthopaedic pilot commenced on Monday 20 August 2018 with the following arrangements:

- All appropriate elective cases to be undertaken at Grantham Hospital with dedicated ring fenced beds on Ward 2.
- All fractured Neck of Femurs (#NoFs) to be managed at Lincoln and Pilgrim hospitals.
- Trauma to remain at Grantham Hospital for the duration of the trial.

The new NHS long-term plan[3] published on 7 January 2019, fully supports the split of urgent and planned work onto different sites to drive improvements. In addition, it is also recognised that managing complex, urgent care on a separate hot site allows improved trauma assessment and better access to specialist care, so patients have better access to the right expertise at the right time.

3.0 Quality of care

This section sets out more information about how the T&O trial has been received by patients and staff.

Ward 2 on the Grantham site has dedicated ring fenced orthopaedic elective beds. Since the trial commenced in August, Ward 2 has received 153 compliments and no complaints from patients. The overwhelming themes from the patient experience feedback was how impressed and happy patients were with the level of care and treatment received from all staff involved. Set out below are a number of patient comments to reflect the level of patient satisfaction:

'I originally came to Grantham Hospital 2 months ago for my total hip replacement (before the trial), but the operation was cancelled due to the lack of theatre time. I had been 4th on the list out of 4 to be operated on that day. If availability of theatre time can be improved then I believe the trial will be a success and a vast improvement on the previous overstretch system'… I had my operation yesterday and discharged today. I can only express my gratitude to all the staff involved, from the surgeon and his team, the anaesthetist, the nursing staff, physio and occupational therapy team. They were all so helpful and courteous, Even the food was excellent ! Thank you everyone for making my short stay so pleasurable.

An excellent experience, cannot fault my treatment and procedures. The team are amazing, so friendly, informative, caring. Nothing is too much trouble for them. My stay was been really 'enjoyable'.

[3] https://www.longtermplan.nhs.uk/

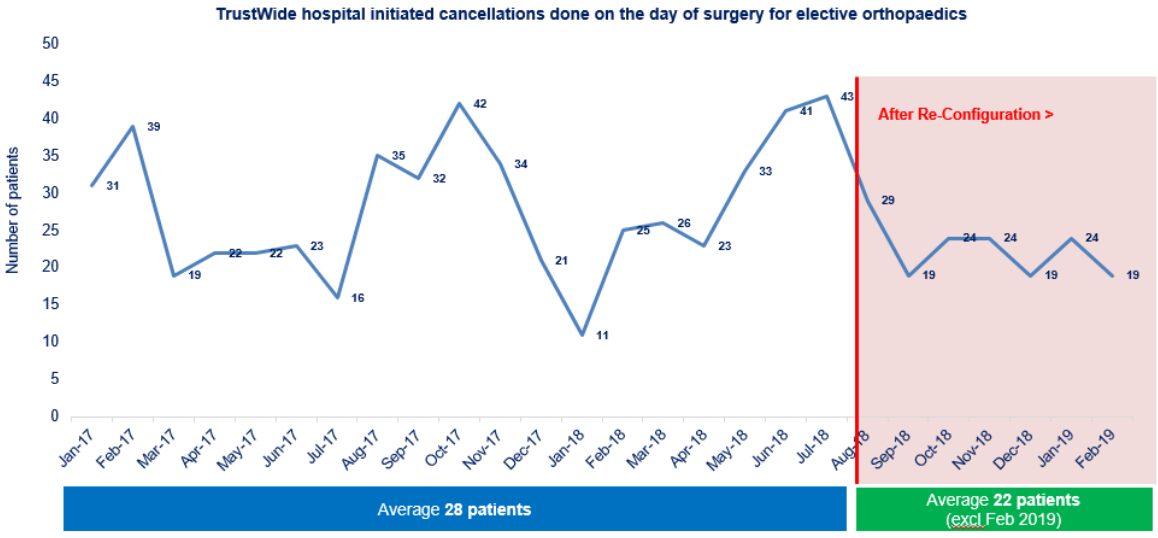
My experience since referral has been excellent. Fast tracked from consultation on 28/11/18 to surgery on 18/01/2019. Amazing, surprised and happy. Again my whole experience from check in at 07.30 (a little early for surgery at 2pm) to surgery, then overnight on Ward 2 was fantastic and little unexpected. All staff were very caring, professional. 100%, 10/10++

Wow certainly 'Enhanced Recovery'. Impressed lovely staff very friendly. Ward so clean and nothing any trouble. Comfortable stay. Well done everyone

One of the risks identified at the start of the trial was whether patients would be prepared to travel up to 30 miles to have their elective treatment at Grantham Hospital. On review of all the patient feedback no reference or issues were highlighted by patients with travelling or transport delays.

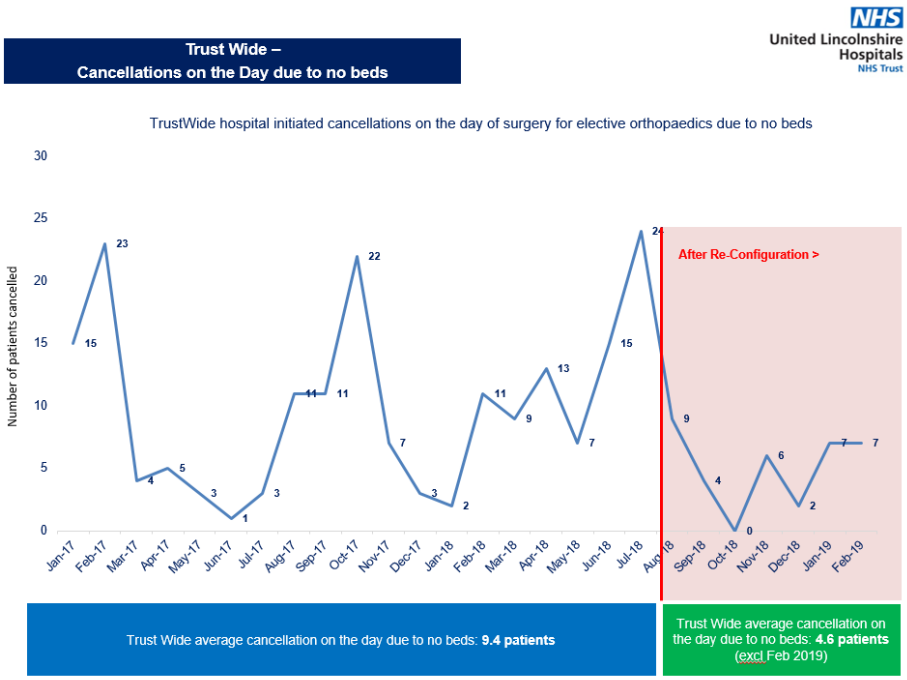
Before the T&O pilot orthopaedic trial, the Trust had extremely high cancellation rates with up to 43 patients cancelled each month. Between April 2017 and March 2018 the cancellation rate was 32%, of these 900 patients, 450 patients were cancelled on the day of surgery. Being cancelled on the day of surgery is extremely distressing for patients and their families. Since the orthopaedic project commenced in August 2018, the Trust wide cancellation rate for non-clinical reasons has reduced to 19 in February 2019 (see graph below).

Trust Wide –
Cancellations on the Day



Before the trial, the highest number of Trust wide cancellations due to a lack a bed was on average 28 patients each month. Since the trial, the number of cancellations due to a lack of a bed has now reduced to an average of 22 patients per month.

The Trust wide average cancellation rate on the day due to a lack of beds was 9.4 patients each month before the trial. This cancellation has now reduced to 4.6 patients cancelled on the day due to no beds (see graph overleaf). No reported cancellations due to a lack of a bed has been reported at Grantham hospital since the trial commenced.



3.1 Surgical Site Infections (SSI)

In 2017, the GIRFT programme conducted its first SSI survey with 95 NHS trusts participating. For orthopaedics, 29 trusts submitted data for analysis. The findings from this audit are shown below for the overall orthopaedic infection rates together with the breakdown by individual procedure:

Specialty	National mean infection rate	Lower quartile	Upper quartile
Orthopaedics (all procedures)	0.7%	0.5%	1.1%
Procedure	National mean infection rate	National minimum rates	National Maximum rates
Elective primary hip replacement	0.5%	0.0%	17.4%
Elective primary knee replacement	0.5%	0.0%	33.3%
Elective primary hip revision	1%	0.0%	16.7%
Primary knee revision	1.4%	0.0%	11.1%

GIRFT will be repeating the SSI survey commencing 1 May 2019 for a six month period. The Trust is committed to participating in this to gain more up to date and comprehensive benchmarking on a national basis.

At present, Surgical Site Infection rates are being collected by the Trust covering a three month period from January – March 2019. The data collection exercise is currently being uploaded to the Public Health England (PHE) portal directly. The Trust expects to receive the analysed data in May 2019 for review and action.

3.2 Staff engagement

During the trial, there were a number of staff challenges, including working practices that had remained unchanged or challenged for many years. One of the lessons learnt from the trial has been the need for early and regular communication to all staff, so staff were brought into the trial from the start. There have been much staff apprehension around how the new working models would impact on them individually.

A short staff satisfaction survey was designed in February 2019, to gain feedback from staff about the trial. 64 responses were received from all staff groups and these have been broken down as follows:

Staff group	Number responded
Nursing staff	22 (34.92%)
Medical staff	18 (28.5%)
Theatre staff	7 (11.11%)
Management	6 (9.52%)
Admin, booking, reception staff	6 (9.52%)
AHPs	3 (4.76%)
Other	2 (3.17%)

- 38 staff (60%) felt they did not receive the right level of information at the right time during the pilot. 19 staff (30%) felt they received enough information during the trial.
- 42 staff (67%) felt that the patient experience had improved and was either ‘a lot better’ or ‘much better’ compared to before the trial commenced. Some specific feedback is set out below:
    - “The care we gave to joint replacements in my care setting were excellent”
    - “All patient comments are positive”
    - “We have had a huge amount of positive feedback”
    - “More electives are being treated”
- Only 17% of staff felt the patient experience was ‘worse’.
- Staff were also asked what could have been done differently. The overwhelming response from staff has been the need for more timely communication. This could have included Trust-wide communication to ensure:
    - Everyone was aware of the pilot.
    - Involvement of staff from the start to get them on side; and
    - A weekly forum to keep everyone informed with progress.

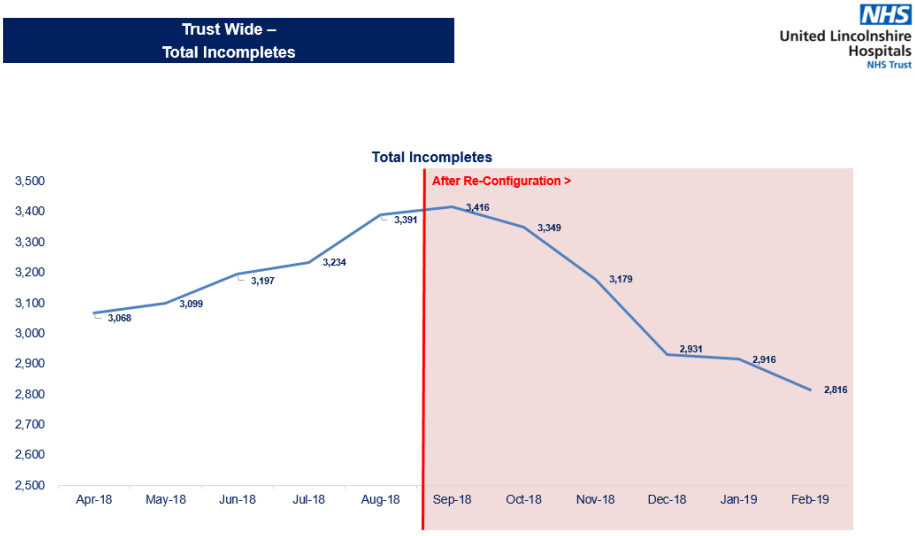
- Other comments received from staff included the need for:
    - More forward planning required.
    - More support in change management to help teams with the new models of work.
    - Improved communication between multi disciplinary teams needed.
    - All consultants to be on board from the start.
    - Plan theatre lists in advance robust job planning.

The Trust recognises the trial was set up and then implemented within a short timeframe. Going forward, managers and the lead clinicians are keen to increase the level of communication and engagement of staff going forward over the next 12 months. A number of changes have already been put in place including a monthly 'open' meeting for theatre staff to attend and share what is working well and areas for improvement or change. In addition, the progress of the project will be published in the monthly newsletter.

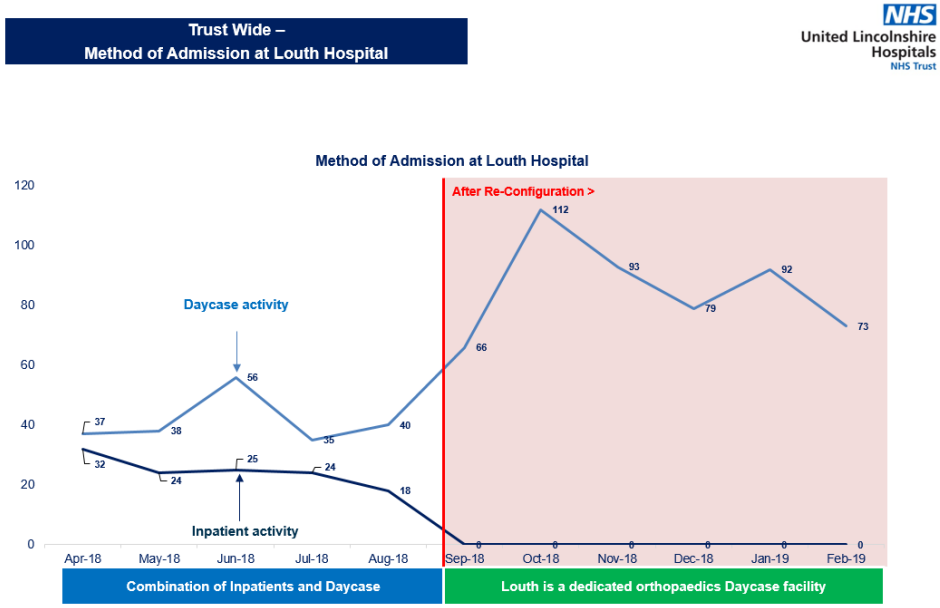
4.0 Access and operational performance - Elective

4.1 Waiting times

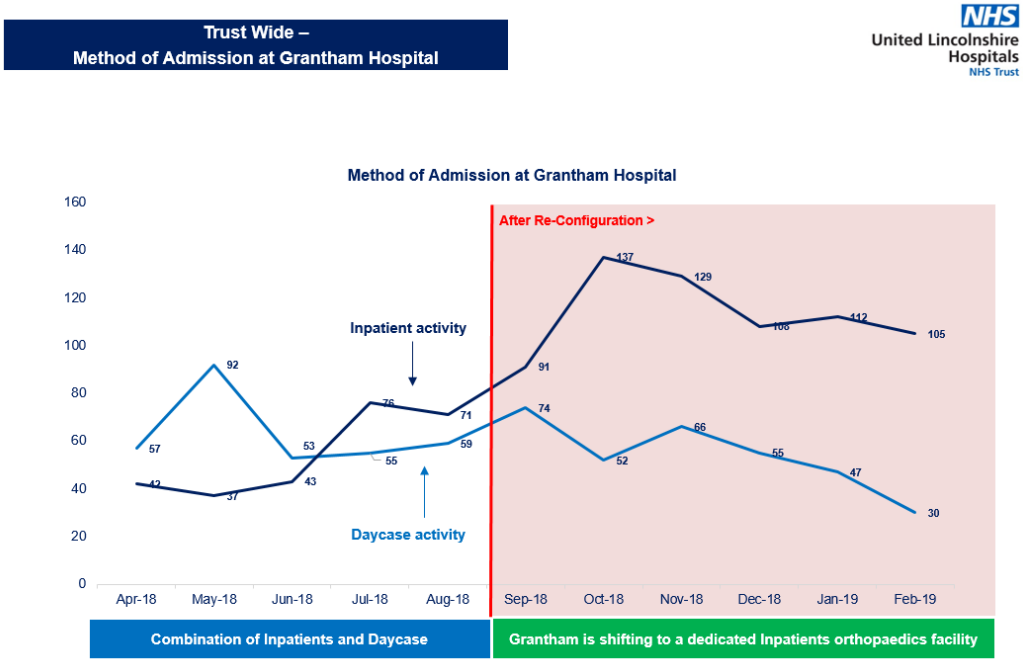
The demand into the T&O service has remained constant. However, the total incomplete pathway reduced from 3,391 in August 2018 to 2,816 in February an improvement of 575 patients, see graph below.



One of the key decisions made by the Trust at the start of the trial was to use Louth County Hospital as a dedicated day case centre for orthopaedics. From September 2018, all orthopaedic inpatient work stopped to maximise the facilities for day case procedures. The average number of orthopaedic day cases seen each month is now 99 compared to 41 before the trial commenced. Over the last six months, Louth has significantly increased its day case activity to a total of 499. This is over double, compared to 240 day case procedures in the previous six month.

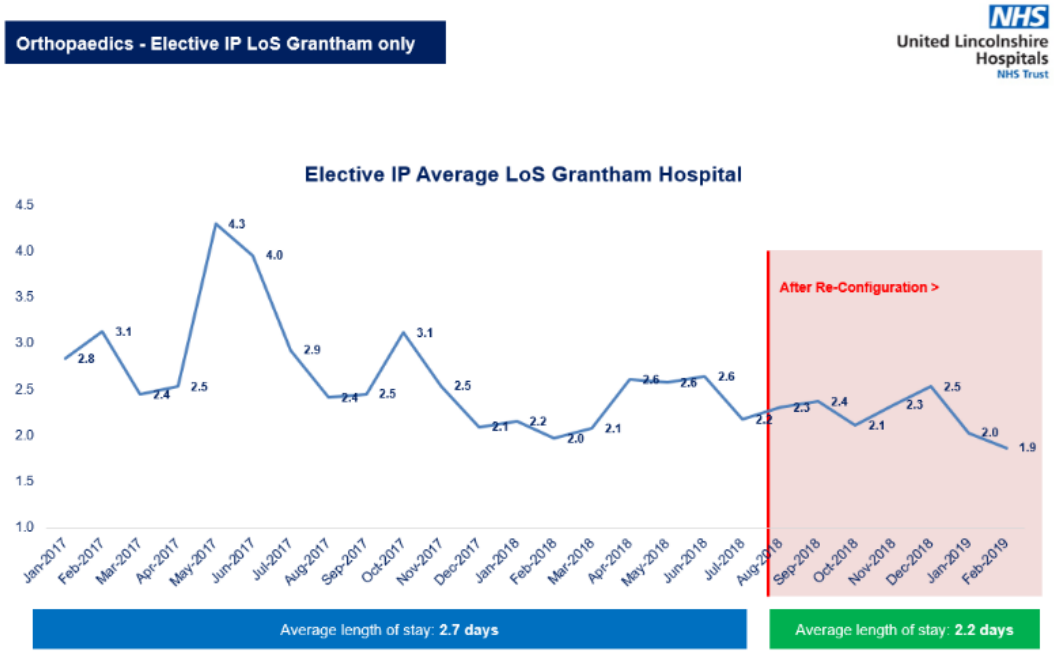


Set out below is the admission method at Grantham Hospital. The graph below sets out the increasing level of inpatient orthopaedic work and reduction in day cases in line with the decisions made.

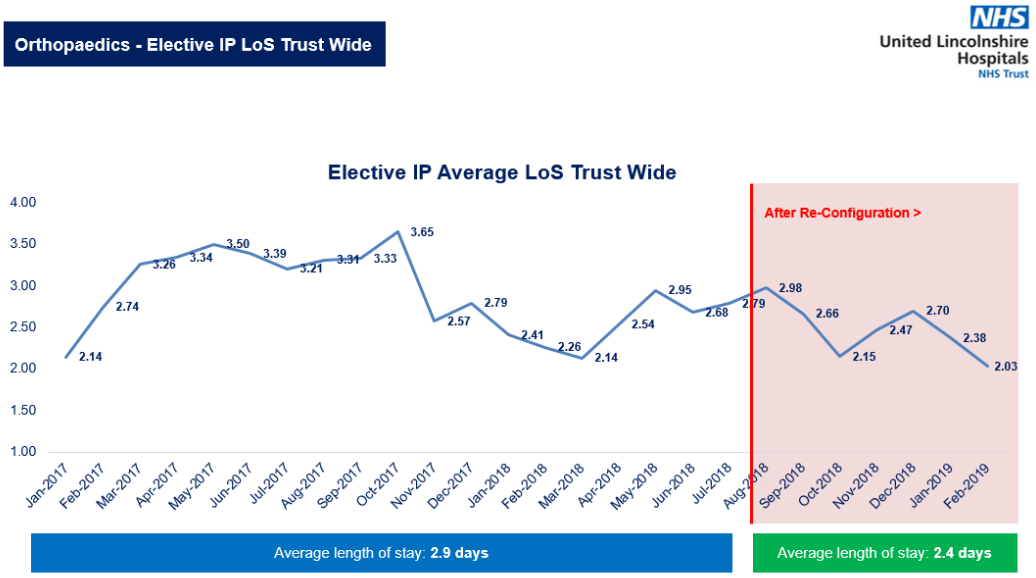


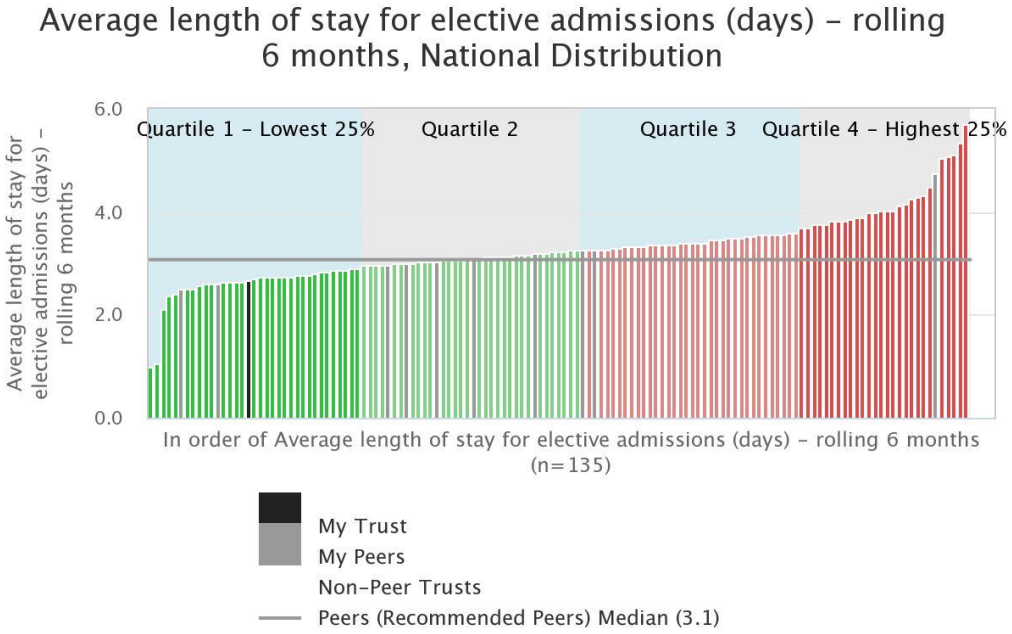
4.2 Length of stay

Orthopaedic inpatient average length of stay at Grantham Hospital has reduced from 2.7 days pre-trial to 2.2 days after the trial (see graph below). The length of stay continues to show a downward trend. This demonstrates strong operational performance and is significantly better than some of the other pilot sites where length of stay actually increased post pilot.



Trust wide length of stay is also showing strong performance from a pre-trial average of 2.9 to 2.4 days after the pilot (see graph below).

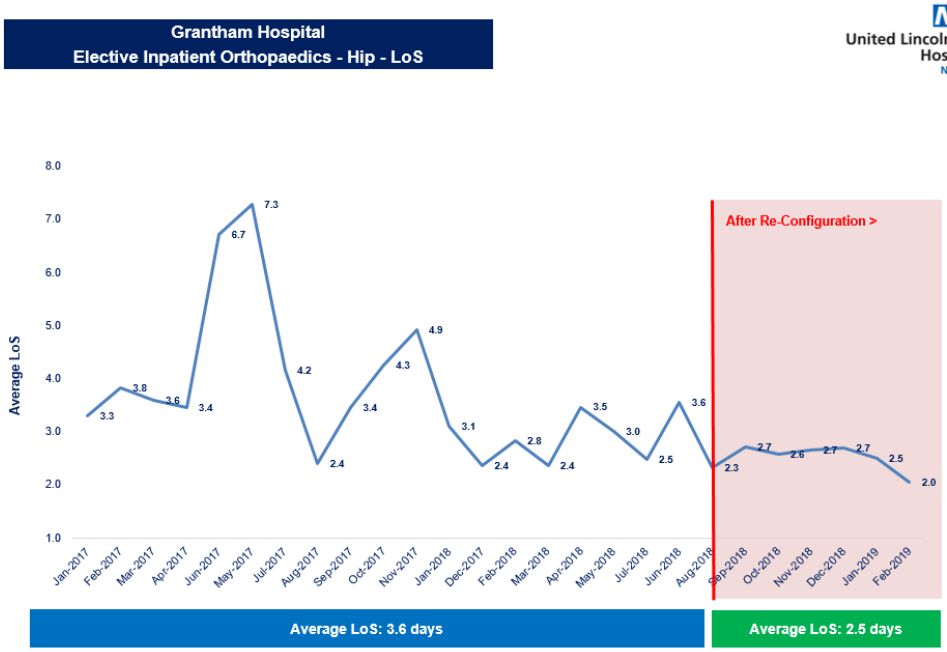




4.2.1 Primary hip replacement length of stay

The length of stay for primary hip replacements at Grantham hospital has now reduced to an average of 2.5 days compared to 3.6 days before the trial commenced. In February 2019, length of stay is now reported to be 2 days (see graph below). This performance compares well to the other pilot trusts were length of stay ranged from 2.5 – 5.3 days.

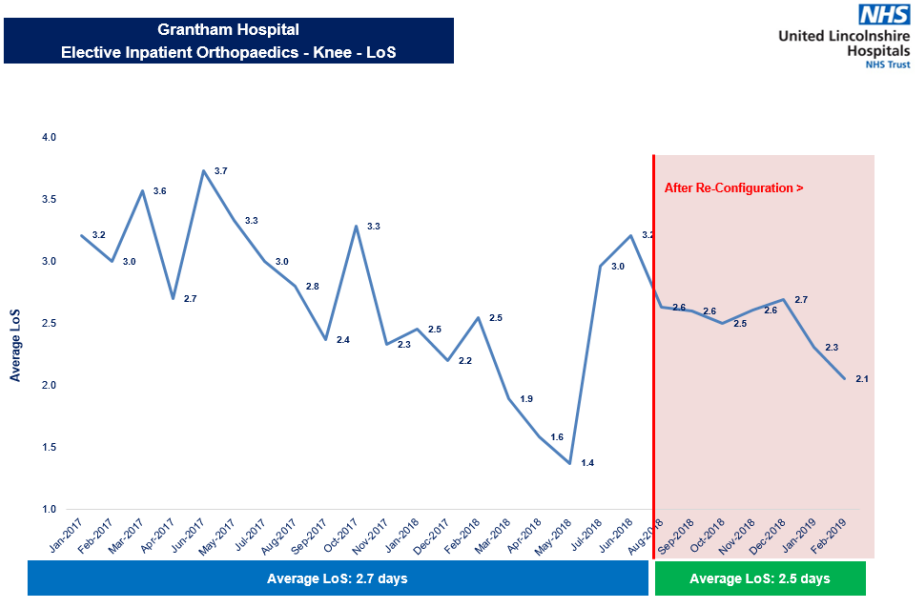
	Grantham	Trust A	Trust B	Trust C	Trust D
LoS primary hips	2.5	4.4	3.36	5.3	2.5



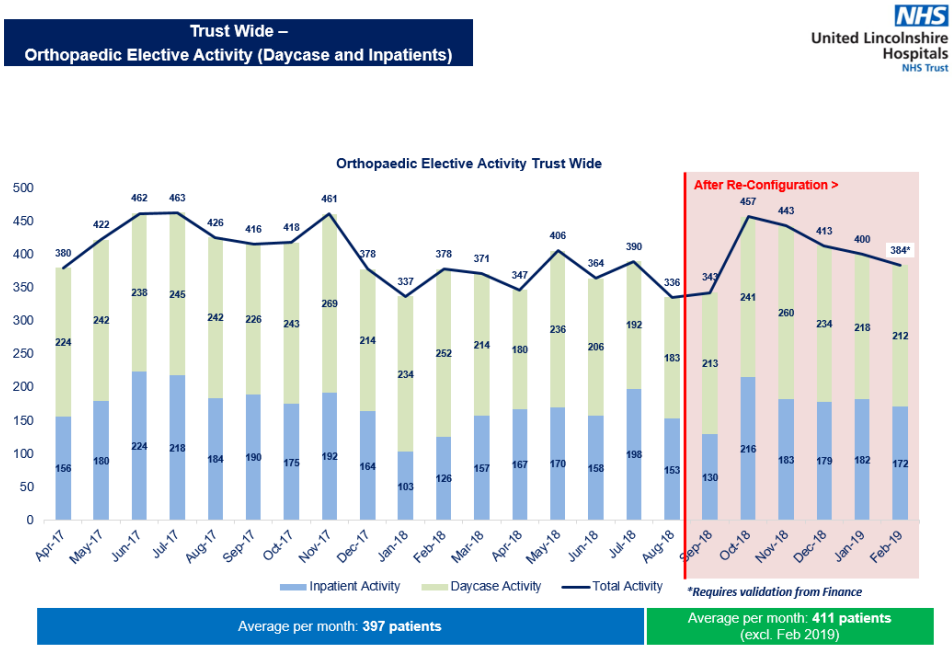
4.2.2 Primary knee replacement length of stay

The length of stay for primary knee replacements at Grantham hospital has also reduced to an average of 2.5 days compared to 2.7 days before the trial commenced. In February 2019, length of stay for knee replacements was down to 2.1 days (see graph below). Grantham's length of stay is the best performance compared to the other pilot trusts.

	Grantham	Trust A	Trust B	Trust C	Trust D
LoS Knee	2.5	4.5	3.82	3.7	3

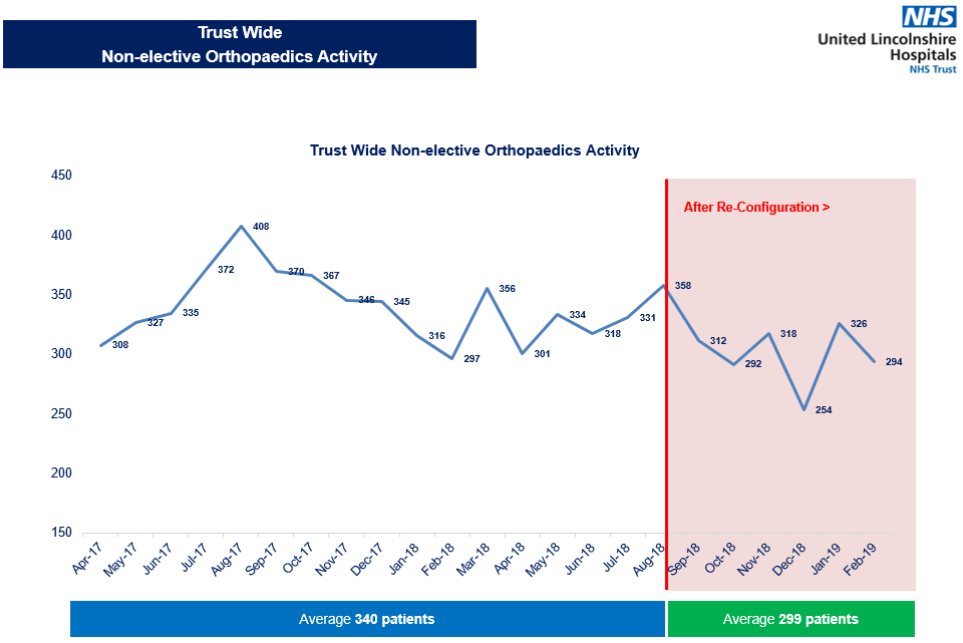


The Trust wide elective orthopaedic activity has increased from an average of 397 patients each month to 411 patients after the trial commenced (see graph below). Although the increase in activity appear to be marginal. The team has experienced a number of challenges. One of the main challenges experienced was at the start of the trial it was agreed to have 14 less trust wide theatre lists per week for orthopaedics.

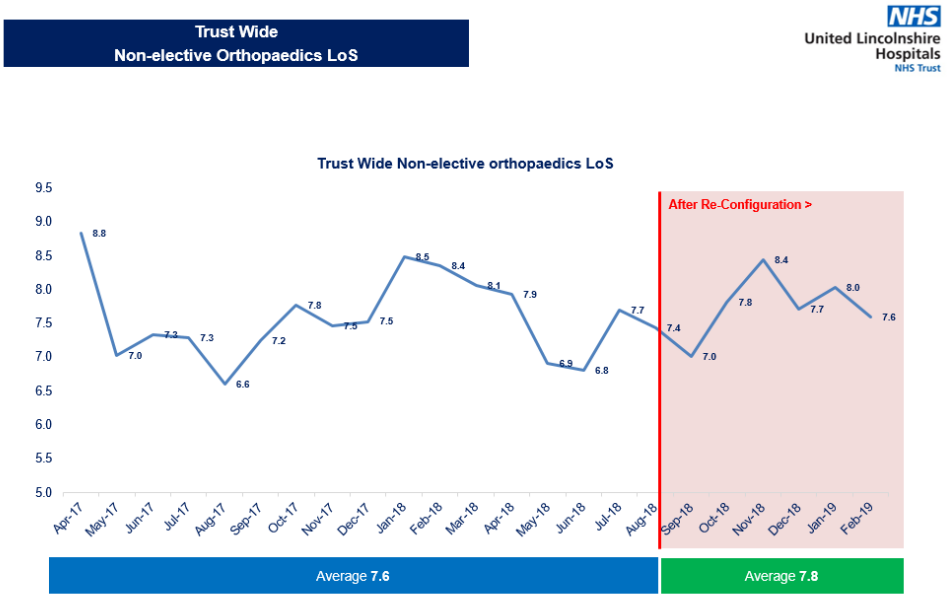


4.3 Access and operational performance – Non elective

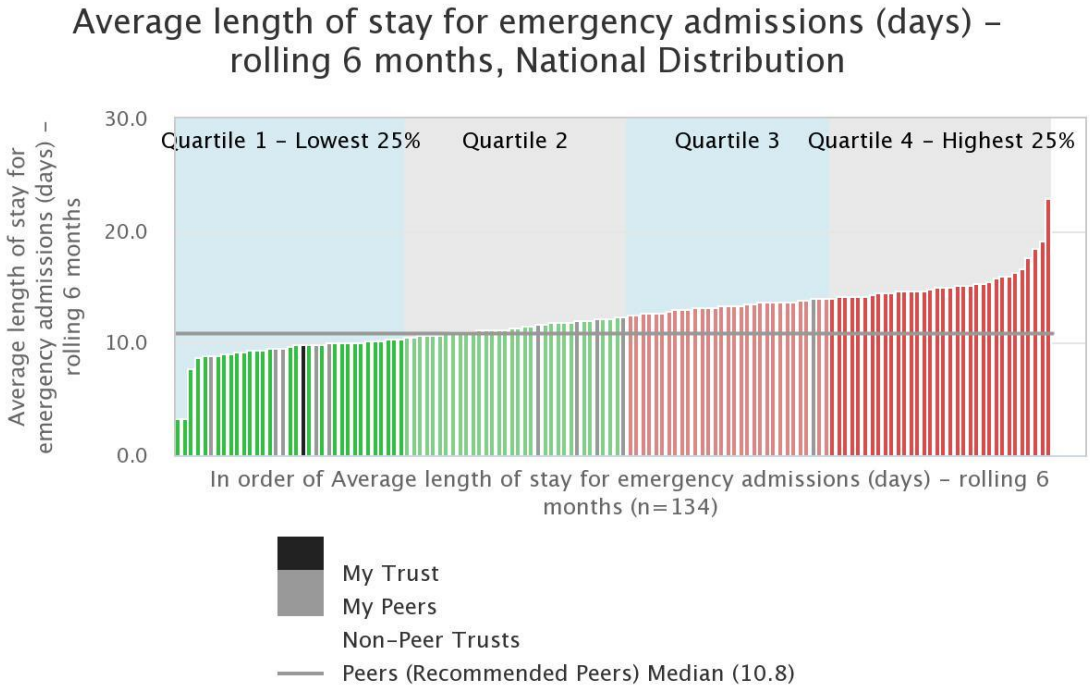
Whilst the Hot and Cold pilot primarily focused on the elective orthopaedic services, trauma remained at Grantham Hospital with the major trauma continuing to take place at Lincoln and Boston. Set out below is the activity and LoS for non elective activity.



The average number of trauma patients see after the start of the trial has reduced from 340 to 299 patients per month. This drop in activity could be due to a number of reasons including a new hot clinics established to take orthopaedic injuries rather than patients being seen in ED, the winter in 2018/19 has been unseasonal warm with few icy days.



The length of stay for trauma after the trial commenced shows a slight increase from 7.6 to 7.8 days. The information on the Model Hospital shows there has been an increase in the number of non elective patients staying more than 6 days. From 37.18% in August 2018 to 41.56% in October, which is now just below the median of 42.3%. However LoS remains in the top quartile nationally.



Stepdown facilities

The Trust has identified the opportunity to further improve efficiencies for orthopaedic patients achieved through working with a third party private provider. A Business Case has been developed and currently being considered. This proposal would see up to 16 orthopaedic step down beds located at Sleaford. The benefits of providing a step down facility include:

- Reductions in length of stay for #NoF patients/non-elective admissions[4]
- Reduced bed occupancy – to enable more elective work to be undertaken
- Improved patient experience

The cost of a step down bed per day is £170 compared to between £400-500 per day in an NHS hospital. The cost of the 16 step down beds for one year has been estimated at £980,000. By freeing up bed occupancy using a step down facility could lead to the repatriation of elective orthopaedic work. Based on repatriating just 10% of this work an estimated £1.5m of additional revenue could be realised.

With the aging population and demographics for the Trust's catchment area, the projected changes to the elderly population is expected to change significantly over the coming years.

[4] LoS reductions from 18 to 12 days, 5 days at the Trust and 7 days stay at the step down facilities.

Population projections for Lincolnshire

	0-15	16-64	65-74	75+
2016	119,100	454,600	96,300	74,800
2041	120,300	453,400	110,000	140,600
Change	+1%	-1%	+14%	+87%

With these projected changes to the elderly population, there is a need for the Trust to consider different ways of working to deal with the expected increases particularly with trauma (e.g. #NoF) in a more cost effective and efficient way.

5.0 Finance

There are a number of financial opportunities for the Trust to explore over the next 12 months as the trial develops into Phase 2. These opportunities include:

Procurement opportunities

The GIRFT national team has developed an analytical portal to help identify procurement opportunities. A summary of the key outputs from the portal show:

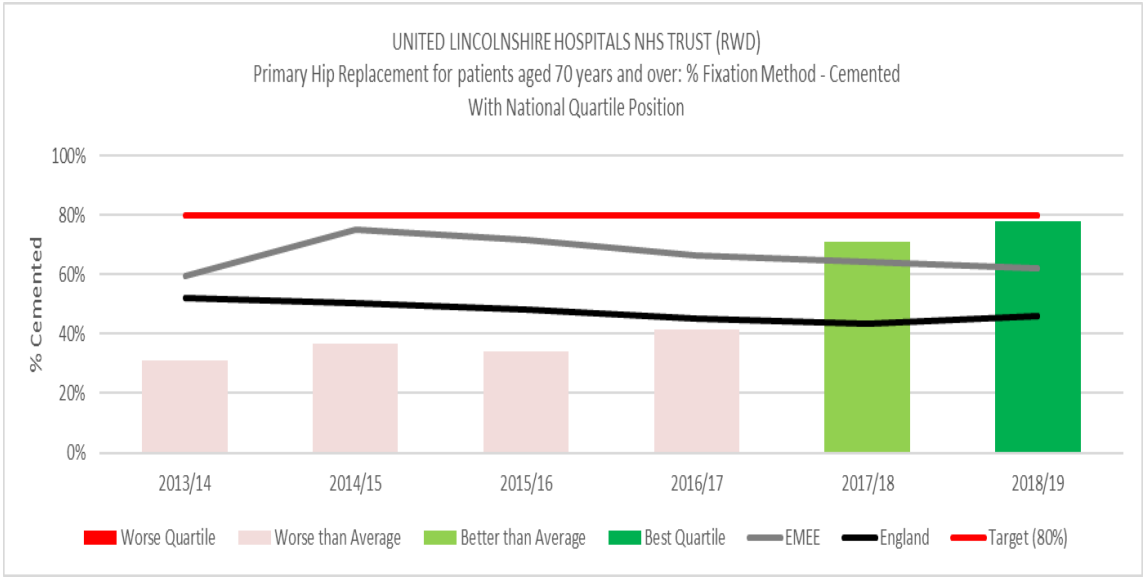
- The number of orthopaedic prosthetic suppliers has been reduced by the Trust to two (Johnson and Stryker) and this compares well to other trusts nationally.
- The one year revision rate for over 70s is now below the average compared to other trusts.
- The Trust appears to be paying more for the same prosthetic components compared to other trusts nationally[5].
- There are potential procurement opportunities identified to the value of £211,000 compared to the other trusts.
- Based on the Trust's prosthetics costs compared to other trusts. There is a procurement opportunity of £304,000 if the Trust is able to negotiate the same price of the prosthetic being used at the costs of the national average being paid by other trusts.

5.1 Best Practice Tariff (BPT)

GIRFT is supporting a change in clinical practice with a new BPT for Primary Hip Replacement. This is to encourage trusts to have at least 80% of patients aged 70 and over receive a cemented or hybrid prosthetic. This new Best Practice Tariff will come into effect from 1 April 2019.

For the year to date (2018/19), the national average cemented hip rate for the over 70 is 41.6%. The average for all trusts within East Midlands and East of England GIRFT hub is 62%. The Trust is performing significant better than the national average and the region it with performance at 78%. The Trust has improved significant from 2016/17 were the rate was 41.5%, compared to the year to date position of 78%. This puts the Trust within the 'best quartile' compared to other trusts. The graph below shows the progress the Trust has made over the past six years to change clinical practices.

[5] Based on the PPIB data available on the GIRFT procurement portal.



Over the last 12 months, the activity for primary hip replacements was 547 patients (March – February). With the new cemented hip BPT coming into effect from 1 April 2019, an extra £100,000 should made available from the local commissioners for achieving 80% compliance. However, if the Trust stretches its performance up to 95% compliance, £122,000 could be possible.

The table set out below shows the achievements of the two cost improvement projects for cemented hip and #NoF BPT for 2018/19.

Project	Scheme name	Type	18/19 Plan Target	£ 18/19 Forecast Outturn	£ Variance to Plan
T&O GIRFT - Non pay	T&O GIRFT - Implant choice and cost (prosthesis choice for over 70s limited to cement).	Non-pay expenditure	£81,600	£143,645	£62,045
T&O GIRFT - Income	T&O GIRFT - Loss of BPT for #NoF This is the portion of income over and above what was delivered in 2017/18	Income	£123,437	£92,566	- **£30,871**
Total			£205,037	£236,211	£31,174

There are still a number of opportunities for the Trust to increase its performance and income gained through the achievement of the #NOF BPT.

Before the trial commenced, the orthopaedic service was significantly behind on its contractual activity levels. The Trust set a target to delivery 300 orthopaedic operations

each month compared to an average of 238 operations per month. Although the Trust has not fully achieved the target of 300 operations each month, the Trust has achieved £429,000 in additional income based on the improved throughput and other efficiencies.

6.0 Key risks

There are a number of potential risks to the programme identified and the top three are listed below:

1. The clinical or managerial leadership to drive forward at pace the changes required.
2. The continuing support from staff to change working patterns (quickly) to achieve increased productivity, improve patient care and reduced LoS.
3. Ability to deliver on all of the benefits of the programme specifically in relation to the efficiency and financial opportunities identified.

There will be a need to review and monitor all risks on a regularly basis to ensure there are mitigating actions agreed and are transparent.

7.0 Next steps

In order for clinicians, operational staff and the Trust Board to monitor and track progress of the orthopaedic hot and cold programme over the next 12 months, it is important to set clear success factors. Appendix A sets out a list of recommended Key Performance Indicators (KPIs) for the Trust to adopt. It will also be important for the Trust to develop a custom made dashboard containing all of these KPIs. This will ensure all of the information about the T&O performance is in one, easily accessible place, which can be updated on a daily or weekly basis.

Once a dedicated orthopaedic dashboard has been created, it will make the reporting of progress quick and simple. Appendix B sets out the key success factors and timescales for delivery over the next 12 months. The table shows the current baseline performance together with the expected improvements to be achieved together with stretch targets.

The top three priority areas include:

1. Improved communication with staff and feedback gained from patients
2. Improved productivity, theatre utilisation and number of patients per list
3. Improved financial position, including the new BPT for cement hips, the BPT for #NOF, the other procurement opportunities and consideration of a step down facility.

Appendix A – Orthopaedic KPIs

Set out below are the recommended KPIs the Trust should adopt. By adopting this suite of KPIs into a dashboard, this will enable the Trust's clinicians, operational teams and the Trust Board to monitor progress and make further improvements where performance is off track.

- Elective
  - Total admissions
  - No of primary hip operations
  - No of primary knee operations
  - Length of stay, all hip surgery (including revisions)
  - Length of stay, all knee surgery (including revisions)
  - On the day cancellations up to 5 days before operation
  - Total cancellations for trauma
- Trauma
  - Total admission – trauma per week
  - Length of stay for trauma patients
  - Bed days for trauma patients
  - Wait for upper limb trauma surgery (from referral)
  - 100% patients reviewed by senior decision maker daily
- Impact on ED
  - Breaches – 4 hour target attributed to T&O
  - Percentage of T&O patients seen within 30 mins of referral
  - Patients transported from ED to other sites by ambulance
  - Patients transferred from ED to other sites by own transport

GETTING IT RIGHT FIRST TIME

United Lincolnshire Hospitals NHS Trust

Appendix B – Success factors and timescale for delivery

Set out below out the future success factors together with the timescales for delivery. The grey boxes shaded below indicates the month the success factors will be achieved.

Success factors	Current baseline	Outcome	Stretch target	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Quality of care															
Patient satisfaction (to be quantified)	Currently monitored qualitatively through feedback received	Design patient questionnaire common to all Trusts in the trial													
Staff satisfaction	Not collected	Repeat survey monkey quarterly													
Surgical Site Infection rates	Currently being collected for 1/4 submission	Report after submission													
Access and operational performance															
RTT admitted	69.14	92%						85%				92%			
RTT non-admitted	85.27	92%						92%							
RTT total	80.12	92%									92%				
Length of stay (hips)	2.5	<2						<2							
Length of stay (knee)	2.5	<2						<2							
Day case hips and hips	TBC	TBC													
Cemented hips (over 70s)	78%	>80%	>87%		80%									87%	
No of joints per session (Grantham only)	1.9	2						2							
Av. cases per session (TW)	TBC	TBC													
Total no of joints per week	38	Total capacity 40				40									
Theatre utilisation	73%	85%						85%							
Cancellations - general beds (Grantham only)	1	0		0											
Cancellations - admin error (Grantham only)	1	<2%				<2%									
Cancellations - lack of time (Grantham only)	2	<2%				<2%									
Cancellations - equipment (Grantham only)	1	<0.8%				<0.8%									
Financial and efficiencies															
Ach. agreed contract levels			£60k per mth												
Step down at Sleaford	N.A.	8 beds	16 beds					8							
#NOF BPT		95% BPT						95%							
Procurement opportunities	New contract														
Tray rationalisation	TBA	TBA													

Appendix C – Benchmarking information compared to the other pilot orthopaedic projects (two months post trial)

Not all of the performance indicators captured by each of the trusts involved in Phase 2 of the Hot and Cold pilot are comparable. Therefore, set out below are a selection of those indicators which are directly comparable to show the progress the Trust has made to date.

	Grantham	Trust A	Trust B	Trust C	Trust D
Primary hips length of stay	2.5	4.4	3.36	5.3	2.5
Primary knee length of stay	2.5	4.5	3.82	3.7	3
Cancellations (per month)	19	43	26	9	34