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Cover: *Eleanor*, is four years old. While she's at GOSH she loves tie dying and crafting, and visits the GOSH school with other patients on Squirrel ward.
What is the *Quality Report*?

The *Quality Report* is an annual report produced for the public by NHS healthcare providers about the quality of services they deliver. Its aim is to enhance accountability and engage leaders of NHS organisations in their quality improvement agendas. The *Quality Report* is a mandated document, which is laid before Parliament before being made available to patients, their families, and the public on the NHS website.

**What does it include?**

The content of the *Quality Report* includes:

- Local quality improvement information, which allows trusts to:
  - demonstrate their service improvement work
  - declare their quality priorities for the coming year and how they intend to address them
- Mandatory statements and quality indicators, which allow comparison between trusts
- Stakeholder and external assurance statements

Great Ormond Street Hospital for Children NHS Foundation Trust (GOSH) has a long-standing reputation as one of the finest paediatric hospitals in the world. We are keen to share information publicly about the quality of our services and about our continuous improvement work.

**Understanding the Quality Report**

We recognise that some of the information provided may not be easily understood by people who do not work in healthcare. So, for clarity, we have provided explanation boxes alongside the text.

"Quotes from staff, patients and their families can be found in speech bubbles."
Faridat is six years old. She comes to Safari outpatients at GOSH with her mum and grandma to have treatment. While she’s at the hospital, she enjoys playing with the toy kitchen and doing arts and crafts with the playroom.
Our hospital

GOSH has
62 nationally recognised specialties

GOSH has
19 highly specialised services for rare and complex conditions, the largest number of any NHS Trust in the UK

97% of inpatients would recommend the hospital

GOSH employs
5,045 hospital staff including doctors, nurses, allied health professionals and administrative staff

Over
1,300 research studies active in 2018/19

GOSH had
43,218 inpatients and
237,908 outpatient appointments in 2018/19

100% of our clinical specialties collect data on outcomes of treatment
Our mission is to put the child first and always – this describes why GOSH exists.

Our vision has been updated to better describe what lies at the heart of the work we do at GOSH – to help the sickest children with complex health needs to fulfil their potential.

To turn our vision into goals we have defined four areas of focus around care, people, research, and technology.

To deliver our work we need to have the right capabilities, resources, and programmes of work.

Our Always Values are the guiding principles for everything we do and will help us deliver our ambition.

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**Helping children with complex health needs fulfil their potential**

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**CARE**

We will achieve the best possible outcomes through providing the safest, most effective and efficient care.

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**PEOPLE**

We will attract and retain the right people through creating a culture that enables us to learn and thrive.

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**RESEARCH**

We will improve children’s lives through research and innovation.

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**TECHNOLOGY**

We will transform care and the way we provide it through harnessing technology.

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**VOICE**

We will use our voice as a trusted partner to influence and improve care.

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**SPACES**

We will create inspiring spaces with state-of-the-art equipment to enhance care delivery and learning.

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**INFORMATION**

We will provide timely, reliable and transparent information to underpin care and research.

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**FUNDING**

We will secure and diversify funding so we can treat all the children that need our care.

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Always welcoming

Always helpful

Always expert

Always one team
Following a refresh and launch of Fulfilling Our Potential in 2017, our activities in 2018 continued to focus on creating a structure and engaging staff to embed our strategy as a plan for the Trust.

Alongside celebration of the work at GOSH to help children and young people with the most complex needs to fulfill their potential, this year’s Open House event launched a new structure for clinical operations teams. The new organisational structure is designed to improve clarity on leadership and reduce the gap between Trust leaders and frontline services.

In December, staff came together for business planning events. Groups cut across departments and discussed how teams throughout the Trust can support one another to deliver Fulfilling Our Potential.

Other key achievements include delivery of the national Referral to Treatment target throughout the year, saving £12.3m through the Trust’s ‘Better Value’ programme, and progress on the redevelopment programme to create inspiring spaces to deliver care and learning. In 2019/20, we plan to deliver savings of £20m.

Implementation of the Electronic Patient Record system will harness technology to transform care, and we are also working to improve recruitment and retention at GOSH, to ensure we have the right people in place to fulfil our potential.

We actively engage in a range of national and international collaborations to learn together and to share good practice across paediatric healthcare settings. Our collaborations include the UK Children’s Alliance, and the European Children’s Hospitals Organisation, for which we co-chair the Quality, Safety, Outcomes and Value working group. Read more about our collaborations in our 2018/19 Annual Report.

A number of our clinical projects from the past year are showcased in section 2A of this report.

Staff showcasing the GOSH Arts BloodQuest app, which aims to reduce anxieties before children and young people have blood tests

A special visit from Hoover to promote our wonderful GOSH Therapy Dog Programme

See the GOSH Annual Report 2018/19 for more on Fulfilling Our Potential, and the programmes that are delivering key elements.
Electronic Patient Record programme

GOSH went live successfully with the Epic electronic patient record (EPR) system over the Easter weekend 2019, and this will be reported on in the 2019/20 Quality Report.

Our EPR vision is that every member of the team caring for a child can always access the information they need – rapidly, confidently and from a single source. Patients, parents and carers, as well as care providers in other hospitals and care settings will also be able to see relevant sections of the records and contribute information between visits to GOSH.

2018/19 has seen an iterative process of building, testing and reviewing the system, with hundreds of staff from every corner of the organisation involved in rigorously testing workflows. There were 127 Usability Sessions in 27 locations around the Trust, with almost 400 staff taking part. Our build of the Epic EPR system has been presented specialty wide, culminating in more than 13,000 hours of training to equip our staff for go-live.

Testing of hardware and software has taken place, with full ‘technical dress rehearsals’ across all wards, including every device that will be used with Epic. Devices for use in the event of downtime have been deployed in all clinical areas, alongside other new pieces of equipment such as workstations on wheels, barcode scanners and label printers.

After go-live, a period of stabilisation follows where the hospital gets used to the new ways of working. Then a phase of optimisation will allow for additional builds to the system to further utilise the capabilities of our EPR for patient care and reporting.
Gabriel, is eight years old has been coming to GOSH every week since November 2018, he loves singing and tickles from his Mum.
October 2018 marked the official launch of GOSH’s new digital research and informatics unit, DRIVE, with the vision to become a world-leading clinical informatics unit focused on data analysis and the acceleration of research. Investment in infrastructure and a Digital Research Environment (DRE) mean that DRIVE is uniquely placed to focus on early phase evaluation of digital technologies.

GOSH’s new Electronic Patient Record System, Epic, is now live and collecting the complex clinical data associated with GOSH patients. The DRE provides us with the platform we need to apply machine learning and artificial intelligence tools to our rich data and to be able to improve patient care and hospital efficiency through:

• prediction of outcomes/complications
• improving scheduling
• reducing variation in care
• improving patient experience using technology

We are developing a programme of engagement with patients, families and staff and will make the most of game-changing technologies, such as artificial intelligence, sensor technology and robotics to address the daily challenges they face. Examples of such technologies include:

• better monitoring of patients both in hospital and at home for earlier detection of complications through sensors and wearables
• use of robots and chatbots for improved patient experience
• development of remote consultation technology to prevent patients travelling to GOSH unnecessarily
• improved patient safety through computer vision and machine learning

DRIVE has established an important partnership with NHS Digital, which has provided significant funding to support the collaboration, alongside partnerships with a selection of global technology giants. DRIVE continues to work with the Industry Exchange Network (IXN) at University College London and their computer science students, who bring an impressive array of novel ideas to DRIVE.

DRIVE also aspires to grow a culture of entrepreneurship across the organisation and, together with Barclays’ Digital Eagles programme, will be running a course for staff with the aim of fostering good ideas and encouraging digital innovation in line with NHS and Department of Health and Social Care (DHSC) priorities.
Mohammad, is two years old. His favourite colour is red and he loves playing with water, especially outside in the rain.
Making inclusivity a reality at GOSH

We know from research evidence that people perform better at work when they are valued, treated fairly, and feel comfortable to be themselves. We also know that discriminatory attitudes and behaviours, whether conscious or unconscious, perpetuate inequalities that prevent us from maximising the skills, talents and experience of our rich and diverse workforce.

In response to the 2017 NHS Staff Survey results, which indicated that GOSH had some work to do to ensure all our staff feel valued, we created staff inclusion forums. These forums are staff-led initiatives, supported by the Human Resources and Organisational Development department. Each forum has a sponsor who is a member of the Trust’s executive team.

**Black, Asian and Minority Ethnic (BAME) Forum**

The BAME Staff Forum launched in October 2018, with the purpose of empowering BAME staff to achieve their potential by creating a positive change and cultural shift in the Trust. Based on feedback from members, the Forum’s Executive Team has defined three main focuses for 2019:

- Career development
- Leadership
- Social and networking opportunities

In addition to four main events throughout the year (based around major cultural and/or religious celebrations), there is a schedule of events including interview skills workshops and joint events with like-minded organisations. To date, two successful events have been held including the Forum Launch and a Welcome Breakfast, which boosted current membership to 150 staff.

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**LGBT+ and Allies Forum**

GOSH launched its LGBT+ and Allies Forum in October 2018, which aims to ensure the Trust recognises and involves staff and volunteers who identify as lesbian, gay, bisexual, trans and non-binary (LGBT+), relationship diverse or as an LGBT+ ally. Its forum executive team has surveyed staff and identified forum priorities, which include: visibility and support of LGBT+ staff and families; policy input; training and education; mentoring; social and other events; and working closely with the other forums to recognise intersectionality, and to provide cross-forum support.

In 2018/19, the LGBT+ and Allies Forum:

- saw the first GOSH presence at the Pride in London parade
- celebrated LGBT+ History Month with events and activities, including the first raising of a rainbow flag at GOSH
- hosted forum breakfasts and evening events
- produced a regular newsletter for members and supporters
- prepared for the launch of its rainbow badge initiative in April 2019

Plans for 2019/20 include the roll out of the ‘GOSH We’re Proud’ badge at GOSH, which gives our staff and volunteers a way to show that GOSH offers an open, non-judgemental and inclusive environment for patients and their families, staff and volunteers who identify as LGBT+.

**Women’s Forum**

To coincide with International Women’s Day, the GOSH Women’s Forum was launched on 8th March 2019. The Forum is currently setting their agenda of what they want to achieve, including working with colleagues across the organisation to explore a range of events and work streams to benefit women working at GOSH. The plans for 2019/20 include developing and promoting the forum across the Trust and engaging with staff to shape the agenda. Work streams will focus on how to support women working at GOSH. Initial suggestions have included menopause support, returning to work after having a baby, and career progression.

**Disability and Long-Term Health Conditions Forum**

Launching later this year, this forum aims to create a safe, inclusive and diverse working environment that encourages and supports engagement from those members of our staff who are disabled or who are affected by a long-term health condition. Members will have the opportunity to influence relevant GOSH policies, strategies and work streams and engage with the Trust to promote awareness around specific issues affecting the membership. We hope that members will help shape our health and wellbeing plans as well as supporting us as we progress through the Disability Confident Employer Scheme. The forum will also support the Trust to develop positive work experiences at GOSH.
Part 1:
A statement on quality from the Chief Executive

It is widely accepted that research-based organisations have a culture of learning and that learning organisations tend to have better patient outcomes and patient experience.

Great Ormond Street Hospital is a standalone specialist children's hospital with a very strong academic partner, University College London. We are, therefore, very fortunate to be a research hospital where an emphasis is put on learning. That is, learning from when things go well and when they don’t and fostering a culture where we continually seek to improve all we do. Our hospital has always depended on charitable support, and I’d like to thank GOSH Children’s Charity and the thousands of donors it represents for its vital contribution to our research and across a wide range of projects.

This Quality Report is one way we can provide information on how we are improving our services and meeting a range of standards and expectations. While some standards are set externally, many of our quality improvement projects are informed by feedback from our patients, their carers and families, our commissioners and other stakeholders. Input from our staff is also vital as we identify and implement actions to improve the quality of the GOSH experience.

This report is divided into sections. In part two of this report we provide detail of a number of improvement projects aligned to our three quality priorities. In this same section we also provide a range of information that serves as reassurance from the Board as to the Quality of our services and information on how we are doing against core quality indicators. The final section includes our performance against key national targets.

Our improvement work should always link to our quality priorities. These are:

- **Safety** - we are committed to reducing avoidable harm and improving patient safety as rapidly as possible. Our safety initiatives aim to ensure that each patient receives the correct treatment or action the first time, every time.

- **Clinical effectiveness** - we seek to provide patient care that is amongst the best in the world and work with our patients to improve the effectiveness of our care through research and innovation.

- **Experience** - we wish our patients and their families to have the best possible experience of our treatment and care. Measurement is important and we seek feedback from our patients, their families, and the wider public to improve the services we offer.

In the area of safety, this report highlights the very good work to improve the safety and experience of patients when venous access is needed. The introduction of a Vessel Health Preservation Framework (VHP) is important. Having a needle introduced to a vein can be an extremely distressing experience for our young patients, but prior to this work no framework existed for children and young people. The framework was carefully developed and tested with staff and children and young people, and the results are impressive: there has been a reduction in the number of unsuccessful cannulation attempts and a sustained reduction in the number of extravasation injuries.

The introduction and further development of the electronic Paediatric Early Warning System (PEWS) was a focus for our efforts to further improve clinical effectiveness. This tool, designed to recognise and respond to children and young people at risk of deterioration, is generated by combining scores from a selection of routine observations. This year we included sepsis risk triggers and alerts to the system and adapted the software for better adherence to full observation sets. Feedback from staff has been overwhelmingly positive and the percentage of completed observations has increased. The number of cardiac arrests outside ICU wards has also decreased and we are monitoring this sustained improvement to see if there is a direct correlation with the use of PEWS. I am also very pleased we are now working with other hospitals and NHS England to develop a national PEWS tool.

In the area of patient experience this year we have done further work to improve our transition support. As a specialist children's hospital we are very mindful of the need to prepare our young people for a transition into general adult or specialist adolescent or adult services, while recognising that the age and type of transition varies. To support our young people to be aware and develop the skills needed to engage with other centres, this year we rolled out the Growing Up Gaining Independence (GUGI) Tool. Feedback from young people and their parents about their experiences has been very good and over the next year we hope to further embed the framework as well as working with other children's hospitals to seek consistency of approach.

Looking forward to the next year, and following inputs from a wide range of stakeholders, including our Young People's Forum, three of the quality priorities we have set ourselves are: the introduction of a Trust wide programme that empowers staff to speak up for safety in the moment; an initiative to reduce the rejected samples for laboratory testing; and to further implement and develop a system that enables our families to give feedback in real time.
Audits are an important way we are able to gain assurance of the quality of our services. During this year we had a number of national audits and clinical outcome reviews, the results of which are found in the body of this report. GOSH staff also carried out a large number of local clinical audits. In order to underline the importance of this work and celebrate the teams that trailblaze in this area, this year we introduced a clinical audit prize, which was won by three exceptional teams.

The quality of our services is also assured by our regulator, the Care Quality Commission. At the beginning of this year, we published the report on our latest inspection which rated our services as good overall. However, we recognise that there are also many areas for improvement. So, during this year we have developed a post-inspection action plan that includes the introduction of a rolling schedule of peer-to-peer mock inspections. These inspections aim to create a cycle of continuous monitoring, learning and improvements as part of the day-to-day culture across the Trust.

The healthcare targets that are set nationally are an important way we can assess whether we are delivering timely and effective care. I am very pleased that after a huge piece of work to improve our systems and process for recording patient data, we were able to consistently meet the national standard of treating 92 per cent of our patients within 18 weeks of referral.

Feedback from our staff, our patients and their families is also essential to monitor and improve the quality of our services. One of the principal ways our staff give feedback is through the national NHS Staff Survey. This year the confidence our staff had in the quality of our services - measured through the percentage likely to recommend the hospital for their family and friends - improved and remained far above the national average. However, the feedback we had from staff about their experience at work was not as positive, with a higher than average proportion of staff saying they had experienced at least one incident of bullying, harassment or abuse at work. Understanding why this is the case and taking concrete steps to address this is a priority for the next year and one which will be addressed in our new People Strategy.

One of the richest sources of feedback comes from our patients and their families. One mechanism to capture this is the Friends and Family Test (FFT). In previous years we had struggled to achieve sufficient response rates. This year I am very pleased that the rate substantially increased, meeting our target in the last quarter, and that the percentage of families recommending the hospital remained very high. The improvements are a result of substantial efforts by our staff from across the Trust. I would also like to thank all the children, young people and their families who take time to give feedback and by doing so become partners in care - you are not only helping us to ensure the quality of care for your family but for all the families that use our services.

At GOSH we also strive to harness the latest technology to transform the care and experience we offer. Throughout this year, we have worked to prepare for the implementation of our Electronic Patient Record (EPR) known as Epic. This was launched successfully in April 2019 and offers enormous potential for further driving up quality. Throughout this report you will see references to how the Epic system is set to augment and improve how we deliver care. I look forward to sharing the impact this system has had in next year’s Quality Report.

Of final note, the information provided in this report relies on good quality data. To this end, we have sought to take all reasonable steps and exercise appropriate due diligence to ensure the accuracy of the data reported.

Matthew Shaw
Chief Executive
Part 2a: 
Priorities for improvement

This part of the report sets out how we have performed against our 2018/19 quality priorities. These are made up of a combination of national priorities as well as local priorities identified by staff, patients and their families, and wider stakeholders such as referrers and commissioners. The quality priorities fall into three categories: safety, clinical effectiveness and experience. These categories were defined by Lord Ara Darzi in his 2008 NHS review for the Department of Health, in which he emphasised that quality should be a central principle in healthcare.

Safety
We are committed to reducing avoidable harm and improving patient safety as rapidly as possible. Our safety initiatives aim to ensure that each patient receives the correct treatment or action the first time, every time.

Clinical effectiveness
At GOSH, we seek to provide patient care that is amongst the best in the world. As a major academic centre, we work with our patients to improve the effectiveness of our care through research and innovation. We use national and international benchmarks to measure our effectiveness whenever possible, and we publish this outcomes data on our website and in renowned academic journals. To measure our effectiveness from the patient’s perspective, we use Patient-Reported Outcome Measures (PROMS).

Experience
We wish our patients and their families to have the best possible experience of our treatment and care. Therefore, we measure patient experience across the hospital and seek feedback from our patients, their families, and the wider public to improve the services we offer. We do this via:

- Membership, patient and member surveys
- Focus groups and events
- Social media
- Asking patients and families about their experience within 48 hours of discharge
Abhinav is 11 years old. While he’s at GOSH for treatment, he passes the time by catching up on his Maths homework.

The six quality priorities reported for 2018/19 were:

**Safety**
- Improving the safety and experience of our patients when venous access is needed for their care
- Reducing the rate of rejected samples for laboratory testing

**Clinical effectiveness**
- Improving the early recognition of the deteriorating child and young person, through the introduction of the electronic Paediatric Early Warning System
- Improving the process for ordering and delivery of chemotherapy

**Experience**
- Improving our young people’s and their parents’ and carers’ experience of transition to adult services
- Implementing a system to receive patient, parent and carer feedback in real time

In this section, we report on our performance against each quality priority by outlining:
- What we said we’d do
- What we did
- What the data shows
- What’s going to happen next
- How this benefits patients
Improving the safety and experience of our patients when venous access is needed for their care

For many of the children who come to GOSH, a daunting experience of their stay is when a needle needs to be introduced into a vein to draw blood or give medication. This anxiety can lead to behavioural distress that further intensifies pain and can interfere with the procedure, and any future procedures required. If ongoing venous access such as a peripheral cannula is required, there is also a risk of extravasation.

What we said we’d do

We said we would introduce a Vessel Health Preservation (VHP) framework that supports staff to:

- choose the right device
- make sure the right procedure is considered based on the child’s individual needs
- help prepare the child and family for the procedure
- make sure the staff member with the right skills is performing the task

What we did

Trusts across the UK use a VHP framework in adult care, where they grade the quality of veins before attempting venous access. However, such a framework did not exist in paediatric healthcare. We decided that to make progress with vessel health, we needed to develop a similar framework for children and young people.

We established a GOSH steering group, consisting of clinical and non-clinical leaders including the Chief Nurse, anaesthetists, specialty leads, clinical site practitioners, infection control staff and quality improvement (QI) staff. We also regularly consulted with patients and families to understand their experiences of cannulation. Over a number of months, the group carefully developed a paediatric VHP framework, testing the framework on pilot wards to ensure it was fit for purpose for both staff and patients.

Once we had refined the framework, we held the ‘Vessel Health Roadshow’, an education and engagement event to raise awareness of the new framework across the hospital. This included teaching by members of the Play Team to promote how preparation of the child and family, positioning, and distraction techniques can help ease anxieties and lead to a more successful procedure.

To ensure early identification of patients where venous access may be more difficult to achieve due to vein condition, we added a section to our electronic Patient Status at a Glance (ePSAG) boards to document vein grade. This helps to highlight these patients to the whole ward team to ensure appropriate treatment plans are put in place at the outset. We have also worked with the team who are implementing Epic, our new electronic patient record system, to ensure that vein grading is supported in the new system.

We also reviewed and updated our education programme to ensure children and young people are cannulated by appropriately skilled clinicians. We developed a teaching and engagement video to ensure all existing and new staff are aware of the new framework, and share good practice in paediatric cannulation to reduce avoidable pain and distress. This is now embedded in the cannulation and venepuncture study day.

We have also tested opportunities for junior doctors to gain additional skills and experience in paediatric cannulation through shadowing experts such as anaesthetists and vascular access facilitators, and are working to embed this into the junior doctors’ education pathway.
What the data shows

1. The average number of unsuccessful cannulation attempts before a patient is referred to the Venous Access Team

We have seen a reduction from an average of 1.9 attempts per child to 1.2 attempts prior to referral to Venous Access Facilitators (VAFs), indicating improvement in timely escalation of children whose vein condition requires additional expertise to achieve venous access.

2. The number of extravasation injuries referred to the Plastics Team

We have achieved and sustained a reduction in the number of extravasation injuries referred to the Plastics Team, decreasing from an average of 12 a month before the project commenced, to 5 a month.

What’s going to happen next?

We are updating our policy and guidelines to ensure the new framework is embedded as standard across the Trust. We are also developing an e-learning package incorporating the training video for all doctors to complete on induction.

The Trust is considering establishing a larger peripheral venous access team to improve out-of-hours access to expert practitioners in venepuncture and cannulation.

How this benefits patients

The VHP framework benefits patients by ensuring:

- The most suitable type of venous access is consistently determined for the patient depending on the reason for access and the length of time for which it is required
- Venous access is attempted by a practitioner with the right level of skill. This reduces the likelihood of failure, improving patient safety and reducing distress
- Children and young people with difficult venous access are identified early, and additional support needed can be planned or booked without delay

Standardising our education, policies and guidelines has:

- Lessened variation in the insertion and management of peripheral cannulas across the hospital, helping to reduce the risk of extravasation injuries. This improves patient safety and reduces the risk of delayed treatment or discharge.

What is a Statistical Process Control chart?

Statistical Process Control (SPC) charts are used to measure variation and improvement over time. Importantly, SPC takes into account natural variation of data, which, if acted upon without analysis, is an inefficient approach to improvement work. Upper control limits (UCL) and lower control limits (LCL) are calculated to help with data analysis. SPC methodology enables us to focus on ‘special cause’ variation, which identifies areas that require further investigation and action.

What is a baseline period?

A baseline is the period of measurement to establish ‘how things are’ before changes are made to a process, to enable comparison ‘before’ and ‘after’. An average (mean) of the data from the baseline period would be used for that comparison.

“[It helps prevent distress in children from excessive attempts at venepuncture.]”

Staff nurse, Bear Ward

“[It helps guide your management of a patient and tries to minimise the harm in those circumstances where there is known difficult access.]”

Staff nurse, Koala Ward
Reducing the rate of rejected samples for laboratory testing

Approximately 70%\(^2\) of clinical decisions are based on information derived from laboratory test results. In 2017, GOSH’s laboratories received more than 400,000 samples and performed more than 1 million tests.

An audit in 2017 identified that approximately 4900 samples were rejected due to pre-analytical reasons over the year. When a sample is rejected, it usually means that the test needs to be repeated. We know that a delay in receiving a result can contribute to delays in diagnosis, treatment and discharge, as well as having a significant impact on patient experience.

What we said we’d do

Early in 2018, the rejection of nasopharyngeal aspirate (NPA) samples due to container leaks was considered as an area for improvement. Issuing guidance for staff to send all of these samples through porters rather than via the pneumatic tube system (‘chute’) reduced the rejection rate.

After this ‘quick win’, we decided to explore other opportunities for improvement in sample collection practice and to implement solutions, with the overall aim of significantly reducing the number of sample rejections by the end of 2019. We said that we would investigate the reasons for sample rejection to understand the causes and identify ways to avoid them.

We identified four key work streams that were integral to achieving a quality sample:

- **Sample Collection Resources** – focusing on the equipment and resources we use to collect patient samples to certify that they are adequate, compatible and do not hinder a quality sample being obtained.
- **Sample Transport** – looking at the different routes, methods and timings for patient samples to get to the laboratory.
- **Training and Education** – assessing the current availability and content of education and training opportunities related to sample collection and comparing it with best practice.
- **Policy and Guidelines** – reviewing our policies and guidelines to ensure they are evidence based and support staff to obtain adequate samples.

Blood cultures

Blood cultures are blood samples to detect infections in the blood. If a blood culture test is positive, the bacteria causing the infection will be identified and testing will be done to find out which antibiotics will effectively treat the infection.

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What we did

We set up a project team of clinical and non-clinical stakeholders from across the Trust, led by the Quality Leads for the laboratories. To understand the main reasons for rejection and where the greatest areas for improvement were, we developed a real-time report on the intranet using data from the laboratory information system. Data can be viewed at Trust and ward level and is accessible by all staff. From the data we were able to identify the most common reasons for rejection:

- Clotted coagulation test samples
- Insufficient/underfilled samples
- Labelling errors

The causes were identified as: incorrect technique when taking the sample (such as insufficient mixing or vigorous shaking), issues with the equipment (such as loss of vacuum, expired tubes or incompatible resources), or delays in transporting samples to the laboratory.

Delayed transport of blood cultures was identified as a frequent issue. It is important that blood cultures are sent to the laboratory as soon as possible so that any bacteria that might be present in the sample can grow, be detected and be treated. We developed visual guides to remind staff to send these samples via the chute for speed of delivery.

Blood must be drawn in a specific order to avoid cross-contamination between blood tubes. We found the collection sequence used at GOSH was different to the order recommended by the suppliers of the bottles, laboratory standards and the World Health Organisation. We have now changed our guideline, created new resources to reflect this, and shared the rationale with staff.

Epic, our new electronic patient record system, will change how tests are requested. When blood tests are requested on Epic, the clinician will be prompted to print a patient label for the tube and will also be reminded of the new sequence in which to take their samples. We therefore anticipate that labelling errors will decrease further from April 2019.

What the data shows

1. Percentage of rejected nasopharyngeal aspirate samples
   The weekly percentage of NPA samples rejected due to leakage has reduced from a mean of 1.79% to a mean of 0.3%. This improvement has been sustained since March 2018.

2. Average blood culture transport time
   The weekly average transport time mean has reduced from 239 minutes (June 2017 to October 2018) to 169 minutes (November 2018 to February 2019). In March 2019 it reduced further to 146 minutes.

3. Weekly rate of rejected samples
   Though we have not yet seen an improvement in the mean rejected samples for these laboratories, our project continues to strive for a decrease. We expect the implementation of Epic to aid this by the end of 2019, when the project is scheduled to end.
What's going to happen next?
We're going to continue to develop and implement interventions to reduce the rate of rejection. We plan to develop a training strategy and practical best practice guide with quick tips for decreasing the likelihood of a sample being rejected.

We're going to continue to evaluate the products we use including trialling an alternative needle and an alternative coagulation tube for neonates with a reduced minimum volume requirement.

How this benefits patients

- Reduced numbers of repeated sample collection procedures, which can be uncomfortable and distressing for patients and families.
- Fewer delays in medical teams receiving results, enabling fewer delays in diagnosis, treatment and discharge.

““This has become a Trust-wide campaign. Clinical and non-clinical stakeholders across the hospital are involved in improving sample quality and reducing sample transport times. Despite all challenges, the staff engagement has been amazing! We are beginning to see very positive conversations and results already.”” Quality Improvement Lead (Pre-analytical), Laboratory Medicine

““The increased use of the pneumatic chute has seen a great improvement in the transportation of blood cultures from the ward to the laboratory. There are now very few blood cultures that are received with long delays in transport time. This means that blood cultures can be incubated quickly, which will reduce the time to detection of pathogens that cause sepsis and allow for quicker patient treatment and management.”” Deputy Laboratory Manager, Microbiology

“This initiative will help us reduce repeated blood draws, which will really help in reducing the distress to patients and also help us manage our workload effectively. I think the project will result in improved patient satisfaction, reduced treatment delays and hospital stays and of course reduced cost” Venous Access Facilitator, Caterpillar Outpatients

Harvey, age three, recently had surgery to remove his tonsils and adenoids. He loves dinosaurs and blowing bubble in his bedroom. His mum says he’s been a “very brave boy” since coming to GOSH.
Clinical effectiveness

Improving the early recognition of the deteriorating child and young person, through the introduction of the electronic Paediatric Early Warning System

Early warning scores are designed to alert health professionals to the signs of clinical deterioration. They support staff by strengthening team communication and helping to deliver the best possible care to stabilise the child or young person.

What we said we’d do
In the Quality Report 2017/18, we made a commitment to improve the early recognition of the deteriorating child and young person at GOSH, through the introduction of the electronic Paediatric Early Warning System (PEWS).

What we did
The decision to replace our Children’s Early Warning Score (CEWS) with PEWS was made after extensive national research and data modelling of over 1.5 million clinical observations showing PEWS to be a more sensitive tool in identifying paediatric patients at risk of deterioration.

A Quality Improvement project was initiated with the aim of implementing PEWS across GOSH by April 2018 and supporting wards to embed use of the new scoring system.

Process Approach
In addition to the implementation of PEWS, sepsis risk factors, prompts and alerts were built into the electronic system. This provided clinical staff with the additional markers to improve the early recognition of clinical deterioration when completing their observations.

The recording of incomplete observations is possible within Epic. However, dashboards have been built to monitor this at ward level, so that any issues with observations completion can be addressed promptly.

What is PEWS?
The Paediatric Early Warning System is a tool to recognise and respond to children and young people at risk of deterioration. It is generated by combining the scores from a selection of routine observations of patients including respiratory rate, heart rate, blood pressure, and blood oxygen saturation.

What is sepsis?
Sepsis is a life threatening condition that arises when the body’s response to an infection injures its own tissues and organs. Sepsis leads to shock, multiple organ failure and death, especially if not recognised early and treated promptly. UK Sepsis Trust.

What is a Clinical Site Practitioner?
A Clinical Site Practitioner (CSP) is a senior nurse in charge of the day-to-day operational management of the hospital.
Training and Education
A comprehensive training package was created by the clinical education team, and rolled out using a ‘Train-the-Trainer’ approach. Key features included:

- Differences in the scoring between CEWS and PEWS
- A ‘Back to Basics’ campaign designed to improve the quality of observation taking
- Staff roles and responsibilities in response to PEWS, such as introducing agreed timeframes for staff to respond to a high PEWS alert

Early Warning Dashboard example

<table>
<thead>
<tr>
<th>Chart types</th>
<th>Obs</th>
<th>Pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEWS</td>
<td>414</td>
<td>17</td>
</tr>
<tr>
<td>Doppler</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NCA/PCA</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Non-acute monitoring</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The Quality Improvement data analysts built the Early Warning Dashboard, which combines specific PEWS and Sepsis measures in a user-friendly way, including the ability to view data at a hospital, ward and patient level.

The data provides assurance that the correct chart types are being used, patient observations are fully completed, and that when sepsis flags are triggered, decisions are made within agreed timeframes.

Project Approach and Implementation
The PEWS was successfully launched at GOSH in March 2018, and an eight week post implementation review was completed in May 2018.

The main recurring theme in the initial period was alert fatigue. It became apparent that escalation alerts had been set at a level that caused a significant increase in the number of unnecessary alerts that nursing staff were required to action. We therefore worked to align the scores with more appropriate escalation triggers, ensuring appropriate reviews were undertaken by the right clinical staff member and at the right time.

What is cardiac arrest?
Cardiac arrest is a term used to describe sudden loss of heart function. It can occur due to an electrical disturbance in the heart, but can also be caused by structural heart abnormalities that disrupt the heart’s normal pumping action.

What is ‘Train the Trainer’?
‘Train-the-Trainer’ is a cascading training model. PEWS subject matter experts intensively trained a number of staff on how to use PEWS appropriately. Those staff then trained others, and so on. This approach is often used within healthcare when a large number of staff must be trained but cannot all attend training at the same time, and peer learning is appropriate.
What the data shows
1. The percentage of observations where all parameters are completed (required to produce an Early Warning Score)
    CEWS prior to 07/03/2018, PEWS after this date. Since the launch of PEWS, the percentage of completed observations has increased from 62% to 75%.

![Graph showing percentage of observations fully complete]

2. Cardiac arrests outside ICU wards/ theatres, per 1000 bed days
    Cardiac arrests per 1000 bed days have decreased from a mean of 0.35 to 0.08 from January 2018, and the reduction has been sustained. Though we cannot claim a direct causal link between the PEWS project and the reduction in cardiac arrests, the timings co-occur and we continue to monitor this improvement.

![Graph showing cardiac arrests per 1000 bed days]

What’s going to happen next?
PEWS has been integrated within our EPR system, Epic, with no changes to the scoring or escalation algorithm.

Led by NHS England, GOSH is also working with other hospitals to develop a national PEWS tool. The initiative is designed to standardise the approach to managing deterioration in children and young people across the UK.

How this benefits patients
- A safer environment
- Better outcomes for patients

“I’m a huge advocate of PEWS, especially when I’m the nurse in charge on the ward, as the system will automatically prompt me whenever one of our patients has a high PEWS score. I can then go and check in with the nurse and patient to see how they’re getting on and put a plan in place if needed.” Staff Nurse

“Since PEWS started we’ve noticed staff feel more confident in escalating concerns to the CSP team, even if their patient doesn’t have a high PEWS score. For me this shows staff are using the system correctly, by using PEWS to support their clinical judgement, rather than replace it.” Clinical Site Practitioner (CSP)
Improving the process for ordering and delivery of chemotherapy

The chemotherapy unit prepares 80 to 100 doses per day of bespoke chemotherapy for a range of patients in the hospital. Both inpatients and outpatients receive complex regimens of chemotherapy for the treatment of cancer. Specialised pharmacists oversee the process from prescribing, clinical verification, manufacture and administration of these high-risk drugs with numerous safety checks built into the process to prevent harm.

What we said we’d do
Tracking preparation of these medicines had always been through a manual paper process that relied on access to a single sheet of paper per day, which would need to be kept up-to-date as changes occurred. Inevitably, the chemotherapy unit would receive numerous phone calls to receive updates about particular patients or from ward areas to enquire about the status of a patient’s chemotherapy. These interruptions along with the labour intensive process of keeping the ‘day planner’ up-to-date led to inefficiencies and required specialist pharmacists to oversee this workflow. There was no visibility at ward level as to the status of chemotherapy, so the chemotherapy unit had limited ability to manage workload.

We decided to explore options for the development of an electronic solution to bring visibility of this information to both pharmacy and ward.

What we did
We approached the Quality Improvement Team with a proposal to create a fully electronic tracking system for chemotherapy prescriptions from prescribing to collection. By identifying the process from start to finish, we provided a comprehensive plan to ensure that the system would bring visibility about chemo status at ward level and pharmacy, with safety mechanisms to ensure chemotherapy can be prioritised. After initial development, the system was tested and refined with the wider team, with additional features developed, such as clinical trial flags to help highlight trial medicines which may require additional steps. After running the system in parallel to the old system to validate it, Chemotracker was launched in February 2018.

The system:
• Allows ward-based pharmacists to update Chemotracker at ward level, without the need to call the chemotherapy unit
• Helps track preparation of chemotherapy through each stage of preparation providing real-time information from Pharmacy to ward areas
• Allows the technicians to prioritise workload based on when patients are due and provide better visibility on expected workload and tasks that need to be completed for the day, all of which help reduce any delays in preparation of chemotherapy

A significant benefit of introducing the system has been that due to the simplified processes in the chemotherapy unit, it has allowed the release of specialist pharmacist time away from the chemotherapy unit and into patient facing areas, making best use of our resources. This has allowed us to maintain specialist pharmacists in all haematology/oncology ward areas, providing a continued benefit in the quality of prescribing.

Prior to the launch of the tracker, ward nurses would call the chemotherapy unit with queries about chemotherapy or communications about patient investigation results. They now are directed to Chemotracker, which answers the majority of their queries. Where additional queries or communications are required they can now talk to their ward-based pharmacist, who knows the patient best and is more readily available on the ward due to the time saved by Chemotracker.
What the data shows
We did a baseline audit in October 2018 of our paper-based system:

<table>
<thead>
<tr>
<th>October 2018</th>
<th>March 2019 onwards</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-60 calls per day to the chemotherapy unit</td>
<td>0 calls per day to the chemotherapy unit</td>
</tr>
</tbody>
</table>

The chemotherapy unit phone now has a voicemail message to direct any, now occasional, callers to speak directly to their ward-based pharmacists as the authoritative and now routinely on-site source of information. Ward-based pharmacists communicate with the chemotherapy unit now using Chemotracker, and urgent messages can be called through to the chemotherapy unit manager.

What's going to happen next?
Chemotracker will be used in conjunction with Epic after go-live in April 2019, providing an ideal model to eventually develop in Epic itself.

How this benefits patients
- Reduced errors
- Reduced delays
- Nurses and doctors have access to specialist pharmacists on the ward at all times where they are best placed to help optimise patient care and support in the delivery of complex chemotherapy

“It allows us as nurses to concentrate on the patients rather than needing to chase up where chemo is. We don’t need to spend time calling to find out if chemo is ready and it is instantly visible to us. The pharmacist can update the tracker on the ward. Having the pharmacist around more on the ward means we can optimise patients’ treatment better and resolve any queries much quicker.”
Senior Staff Nurse Safari Day Care

“Chemotracker has allowed us to concentrate on the tasks we need to do. It’s a big improvement from the old system which was difficult to use and interpret. By reducing the number of phone calls, we can provide an environment free from interruptions to ensure the safe preparation of chemotherapy.”
Chemotherapy unit manager

“It allows us as ward-based pharmacists to concentrate on being visible in ward areas, reducing the amount of time taken tracking prescriptions. It allows us to fully manage our patients’ chemotherapy orders and reduce delays.”
Specialist Haematology/Oncology Pharmacist

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Specialist Haematology/Oncology Pharmacist
Austin is five years old. He’s currently receiving treatment for Duchenne muscular dystrophy as part of a clinical research trial at GOSH. While at the hospital, he enjoys colouring with help from Play Worker Sian.
Improving our young people’s and their parents’ and carers’ experience of transition to adult services

The way young people and their families are prepared for the move from paediatric to adult health services has come under increasing scrutiny in recent years. NICE published the guidelines, *Transition from Children’s to Adults’ Services for Young People Using Health or Social Care Services* in 2016. One of the underlying principles in the guidelines is that young people should start to be prepared for adult health services (termed ‘transition’) by the age of 14 at the latest.

As a stand-alone paediatric hospital providing highly specialised care, this principle presents a challenge for GOSH. It is not always clear at this age whether transfer to specialist adult health services, and therefore transition, will be necessary. In addition, some young people move to dedicated adolescent services located in other Trusts. They encounter similar challenges as those who move straight to adult services (including different environments, procedures and personnel) and consequently have similar preparation needs. This is a situation unique to GOSH and is not addressed in the NICE Guidance.

Working jointly with young people and parents we developed the Growing Up, Gaining Independence (GUGI) framework at GOSH to enable us to both find solutions to the unique challenges our young people and their families face, and to comply with the NICE guidelines as closely as possible.

<table>
<thead>
<tr>
<th>14yrs</th>
<th>15yrs</th>
<th>16yrs</th>
<th>17yrs</th>
<th>18yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOSH</td>
<td>GOSH</td>
<td>GOSH</td>
<td>GOSH</td>
<td>GOSH</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>GOSH</td>
<td>Adult Services</td>
<td>Adult Services</td>
<td>Adult Services</td>
<td>Adult Services</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New referrals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Variety of transition types and timings

What is transition?

Transition is “the purposeful, planned process of preparing young people under paediatric care and their families or carers for, and moving them to, adolescent- or adult-oriented healthcare.”


What is Pals?

The Patient Advice and Liaison Service (Pals) offers confidential advice, support and information on health-related matters. They provide a point of contact for patients, their families and carers, and are available in all NHS hospitals.

The Growing Up Gaining Independence (GUGI) programme has been developed to:

- Make all young people and their parents/carers aware of the skills and knowledge they need to engage with adult health care services
- Support the young person to develop these skills
- Prepare those who need to continue onto specialist adolescent or adult healthcare services

Transition was always something that really scared me. I feel very fortunate that I have been able to help in the development of Growing Up, Gaining Independence. I really think this will give people a much smoother transition, make them better prepared and help to alleviate some of the fear.” Emma, 18

“This has really opened my eyes – I simply hadn’t thought about making sure my son knew how to make an appointment for himself. And I certainly didn’t know he would be signing his own consent form once he is 16!” Parent of 15 year old

“Me and mum started talking about it on the train. Next appointment I want to go in and see the doctor on my own for a bit. And we’re going to look at all my clinic letters when we get home. I didn’t know you got sent a letter.” Ben, 13

What we said we’d do
In last year’s Quality Report, we said that in 2018/19, we would:

• Roll out the two part GUGI programme across the Trust and embed it as standard practice

• Start those older than 16 on GUGI Part Two, which is specifically designed to support those who will soon transfer into specialist adolescent or adult care from GOSH

What we did
GUGI information folders are now available in all the clinic rooms in the Trust and on the Trust’s internet. The information is also freely available on the external GOSH website and on display outside the Patient Advice and Liaison (Pals) office. Information is available in a variety of formats including Easyread for young people and parents with a learning disability.

Templates for GUGI part 2 information booklets are available, which teams can adapt as necessary. We are developing further supporting information in a variety of formats (written, audio and video). An additional project is underway with the GOSH Arts programme to produce a resource to help young people with the emotional impact of moving on from GOSH.

What the data shows
A total of 21,899 (29%) of our patients were in the 12-19 age bracket in 2018/19. Not all of these patients will need to transition to specialist adult care but we recognise that the majority will need to engage with health services as adults. The numbers by each age are shown in the table below:

1. Number of patients

<table>
<thead>
<tr>
<th>Age</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>3,991</td>
</tr>
<tr>
<td>13</td>
<td>4,162</td>
</tr>
<tr>
<td>14</td>
<td>4,051</td>
</tr>
<tr>
<td>15</td>
<td>3,860</td>
</tr>
<tr>
<td>16</td>
<td>2,989</td>
</tr>
<tr>
<td>17</td>
<td>1,915</td>
</tr>
<tr>
<td>18</td>
<td>669</td>
</tr>
<tr>
<td>19</td>
<td>262</td>
</tr>
<tr>
<td>Total</td>
<td>21,899</td>
</tr>
</tbody>
</table>

Another indication of volume is outpatient appointments. The table below shows the total number of appointments by age for people aged 12 -19 years in 2018/19.

2. Number of appointments

<table>
<thead>
<tr>
<th>Age</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>12,228</td>
</tr>
<tr>
<td>13</td>
<td>12,696</td>
</tr>
<tr>
<td>14</td>
<td>12,129</td>
</tr>
<tr>
<td>15</td>
<td>11,790</td>
</tr>
<tr>
<td>16</td>
<td>8,942</td>
</tr>
<tr>
<td>17</td>
<td>5,561</td>
</tr>
<tr>
<td>18</td>
<td>1,519</td>
</tr>
<tr>
<td>19</td>
<td>550</td>
</tr>
<tr>
<td>Total</td>
<td>65,415</td>
</tr>
</tbody>
</table>

Anecdotal evidence so far suggests GUGI is making a positive difference by prompting young people and families to consider their independence preparation needs and making them aware of legal changes that occur at their 16th birthday. The launch of Epic is necessary for quantitative measures, such as number of transition plans in place two years prior to expected age of transfer.

What’s going to happen next?
The Clinical Nurse Specialist for Adolescent Health will continue the improvement programme and further develop and embed the GUGI framework, support teams to adapt resources, and ensure transition is an integral and early aspect of the care we provide to our young people.

We will undertake research and audit in 2019 to assess the impact of the GUGI framework on young people’s preparation for the move to specialist adult care.

We have joined with other children’s hospitals, including Alder Hey, Royal Manchester, Birmingham, Leeds, and Sheffield in a nurse-led National Transition Improvement Group to share challenges and good practice, make recommendations, and seek consistency of approach nationally where possible.

GOSH is also an active member of the National Transition Collaborative. Launching in May 2019, this joint NHS Improvement and NHS England initiative was established to help organisations develop their transition practices.

How this benefits patients
• Helps promote young people’s independence and helps them prepare for adulthood and for adult health services

• Provides practical advice for young people on how to prepare for clinic appointments and how to get the most out of them

• Makes families aware of health-related legal changes after the 16th birthday
Implementing a system to receive patient, parent and carer feedback in real time

At GOSH, we think it is vital to use the feedback we get from children, young people and families to continually improve our services.

What we said we’d do

We said that we would introduce new computer software to replace the Friends and Family Test (FFT) database that we developed in-house to initially implement the FFT here at GOSH. This would enable patients and families to enter feedback online, including via tablet or phone.

We wanted the new software to:

- expand the options for our patients and families in how they can enter feedback about their experiences
- enable us to act on feedback as quickly as possible, and ideally in ‘real time’
- ensure tracking of any actions needed from feedback to ensure they are achieved in a timely manner
- enable central storage of all data received from the FFT (including paper cards)
- achieve streamlined reporting
- work alongside Epic
- reduce manual data input of feedback

We also wanted the software to be interactive to encourage children and young people to give feedback. None of the suppliers we reviewed met each of these requirements but one supplier was willing to work in partnership with GOSH to develop an interactive module for children and young people.

What we did

We looked at companies that produce feedback software in the UK, North America and Canada. We also asked colleagues in North America and Canada for advice in integrating feedback software with Epic. After extensive evaluation, we selected a supplier at the end of 2017 that could deliver a reliable software solution and had the willingness and capability to work with us to develop new functionality. Work commenced on configuring the software to meet our needs in January 2018. The system was launched ahead of schedule on 5 June 2018.

What the data shows

<table>
<thead>
<tr>
<th>15,000</th>
<th>271%</th>
</tr>
</thead>
<tbody>
<tr>
<td>the number of feedback comments received since we went live with the new software</td>
<td>increase in the amount of feedback received online January to February 2019</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>the average number of days to respond to and resolve a negative comment received via a feedback card</td>
<td>the average number of days to respond to and resolve a negative comment received through the online system</td>
</tr>
</tbody>
</table>
What’s going to happen next?

Having implemented and rigorously tested the standard feedback software, we are now working with the software company and the GOSH Young People’s Forum to develop an interactive surveying module. Our aim is to encourage more children and young people to give us their feedback about their experiences at GOSH by providing an engaging and fun feedback module. This will initially be for children under the age of eight years old, and will extend to other age groups in time.

We want our Heads of Nursing to manage the feedback for their areas of responsibility. The software allows customised dashboards for various job roles, which will give an overall impression of the feedback being received, but will also provide the facility to look deeper into specific issues. After this development, we will extend the dashboards to meet the needs of matrons and managers at all levels.

We will continue to promote the online feedback tool to give patients and families a range of feedback options. In addition to promotional materials, we are also aiming to send a link to the feedback page via a text message both in the reminder before an appointment and also afterwards.

How this benefits patients

- Families can give us their feedback at any time that suits them
- Queries submitted online can be investigated and resolved quickly
- All feedback that requires action can be easily tracked and remains ‘open’ until resolution
- By analysing actions taken, themes for broader improvement can be identified and prioritised more effectively
- All feedback methods (cards and online) give respondents the option to record their disability, ethnicity and gender so that additional analysis can show whether experience varies as a result of these characteristics

We monitor the feedback and nominate members of staff for a GOSH Exceptional Member of Staff (GEMS) award. In March 2019, a Healthcare Assistant within our International Private Patients directorate has received a GEMS award as a result of the feedback received about her.

A family were having problems contacting GOSH regarding their daughter’s appointment. Action was taken by the Dermatology team and the child had an appointment booked the same day.

“Thank you for your help. Although we were unhappy that we had to chase, we are very pleased with the outcome and quick response.”

Parent of dermatology patient

A parent wanted to pass on her thanks to the Learning Disability team:

“From contacting the hospital to arrange support for our appointment to arriving on the day, I cannot praise [staff name] (who organised support) and [staff name] (who assisted on the day) enough. This service is a life saver to ourselves as parents and our son. To have someone by our side who understands and empathises with his needs is like a dream come true. We cannot thank you enough for this fabulous service.”

Helpful

TECHNOLOGY
Quality priorities for 2019/20

The following table provides details of three of the quality improvement projects that the Trust will undertake in 2019/20. These priorities were determined with input from staff, patients and their families, and commissioners. This input was sought through a range of mechanisms including a survey, consultation, and use of established meetings such as our Council of Governors, Young People’s Forum, and Patient and Family Engagement and Experience Committee. The new quality improvement projects are in line with our strategic priority to provide the safest, most effective and efficient care, with the best possible outcomes.

**Safety**
To eliminate avoidable harm.

<table>
<thead>
<tr>
<th>Improvement initiative</th>
<th>What does this mean and why is it important?</th>
<th>How will progress be monitored, measured and reported?</th>
</tr>
</thead>
</table>
| Implementing the Speak Up Programme    | GOSH is undertaking a transformational multi-year programme of work to build and sustain an outstanding culture of safety, reliability and openness.                                                                                            | 1. Rate of incident reporting per 1000 bed days  
2. Number of Serious Incidents reported  
3. Percentage of staff who have witnessed errors, near misses or incidents that could hurt patients in the last month  
4. Percentage of staff who reported the last error/near miss/incident seen that could hurt staff or patients  
5. Number of staff who feel able to appropriately challenge where hand hygiene should have been performed  
6. Number of grades 2, 3 and 4 pressure ulcers acquired in our hospital  
Progress is monitored at monthly programme board. Reports are provided quarterly to Trust Board. |
| Expert                                 | The programme includes ‘Speaking Up for Safety’™ and also encompasses NHS-wide work streams such as the Freedom to Speak Up Guardian and Ambassadors.                                                                                 |                                                                                                                                               |
| CARE                                   | This is a Trust-wide programme focused on developing and sustaining a healthcare culture that enhances safety, reduces risk and promotes openness.                                                                                   |                                                                                                                                               |
### Clinical effectiveness

To consistently deliver excellent clinical outcomes, to help children with complex health needs fulfil their potential.

<table>
<thead>
<tr>
<th>Improvement initiative</th>
<th>What does this mean and why is it important?</th>
<th>How will progress be monitored, measured and reported?</th>
</tr>
</thead>
</table>
| Reducing the number of rejected samples for laboratory testing | 70% of clinical decisions rely on laboratory test results. At GOSH, a high proportion of samples were rejected due to ‘pre-analytical’ reasons - from sample collection methods and labelling through to transportation to the laboratory. If a sample must be rejected, re-taking of the sample will often be needed. Consequences may include delay in diagnosis, treatment, and discharge, negative patient experience, and increased cost to the Trust. This project is supported Trust-wide by stakeholders across the hospital. A real-time QI dashboard of measures displays sample rejection data as well as a table of reasons for rejections, so that the team can identify key aspects for improvement quickly. | 1. The number of rejected lab samples due to pre-analytical reasons  
2. Percentage of blood cultures transported within 120 mins  
3. Percentage of clotted anticoagulant tubes  
4. Number of under-filled / insufficient samples  
5. Percentage of rejected stool samples  
Project progress is reported to and monitored at the Quality Improvement Committee.                                                                                           |

### Experience

To deliver kind and compassionate care, and communicate clearly to build confidence and ease.

<table>
<thead>
<tr>
<th>Improvement initiative</th>
<th>What does this mean and why is it important?</th>
<th>How will progress be monitored, measured and reported?</th>
</tr>
</thead>
</table>
| Implementing a system to receive patient, parent and carer feedback in real time | Patients and their families told us that they would like to have choice in how they provide feedback to the Trust. The online system allows families to give feedback at a time that suits them. In addition, this enables the Patient Experience Team to investigate and resolve any issues very quickly. By analysing the comments, themes for improvement can be identified and prioritised. Children and young people have told us that they would be encouraged to feed back if the software was more interactive. We will work with the system supplier and our Young People’s Forum to develop the feedback software to encourage a higher percentage of online feedback from our patients. | 1. Number of feedback items received online and in paper form  
2. Ongoing monitoring of the resolution time of negative comments  
3. Number of feedback items we receive from our children and young people  
Project progress will be reported and monitored at the Patient and Family Experience and Engagement Committee and the Quality, Safety and Experience Assurance Committee.                                                                 |
James, is eleven months old and was diagnosed with Leukaemia on New Years’ Day. He was rushed to GOSH when he was seven months old, here he is visiting Elephant Ward with Mum Faye.
Part 2b: Statements of assurance from the Board

This section comprises the following statements:

- Review of our services
- Clinical audit
- Learning from deaths
- Participation in clinical research
- CQC registration
- Use of the CQUIN payment framework
- Data quality
- Priority clinical standards for seven-day hospital services
- Promoting safety by giving voice to concerns
- Reducing rota gaps for NHS doctors and dentists in training

**Review of our services**

During 2018/19, GOSH provided and/or sub-contracted 62 relevant health services. The income generated by these services reviewed in 2018/19 represents 100 per cent of the total income generated from the provision of relevant services by GOSH for 2018/19. GOSH has reviewed all the data available to us on the quality of care in our 62 services.

In order to ensure that we maintain excellent service provision, we have internal processes to check that we meet our own quality standards and those set nationally. These processes include scrutiny by committee. One example is our Quality, Safety and Experience Assurance Committee, where there is a focus on improvements in quality, safety and patient experience. Assurance is provided through reports on compliance, risk, audit, safeguarding, clinical ethics, and performance. Patient stories are often presented to this forum and to the Trust Board.

As a matter of routine, key measures relating to the Trust's core business are presented to the Trust Board. These include measures of quality and safety, patient and referrer experience, and patient access to services.

The Trust’s performance framework enables clinical divisions to regularly review their progress, to identify improvements and to provide the Trust Board with appropriate assurance. Our structure can respond to our improvement needs. For example, our recent NHS Staff Survey results have prompted the development of a comprehensive People Strategy and a new committee, the People and Education Assurance Committee to monitor its delivery.
## Clinical Audit

### Participation in national clinical audit

During 2018/19, 13 national clinical audits and clinical outcome review programmes covered the NHS services that GOSH provides. The Trust has participated in them all and data submissions are outlined below.

<table>
<thead>
<tr>
<th>Name of national audit / clinical outcome review programme</th>
<th>Cases submitted, as a percentage of the number of registered cases required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiac arrhythmia (NICOR: National Institute for Cardiovascular Outcomes Research)</td>
<td>162/162 (100%)</td>
</tr>
<tr>
<td>Congenital heart disease including paediatric cardiac surgery (NICOR: National Institute for Cardiovascular Outcomes Research)</td>
<td>610/610 (100%) for surgical procedures 515/515 (100%) for catheters 18/18 (100%) for support procedures</td>
</tr>
<tr>
<td>Diabetes (Paediatric) (National Paediatric Diabetes Association)</td>
<td>49/49 (100%)</td>
</tr>
<tr>
<td>Inflammatory Bowel Disease (IBD) Registry (British Society of Gastroenterology, The Royal College of Physicians, and Crohn’s and Colitis UK via IBD Registry Ltd)</td>
<td>The IBD has 120 GOSH patients in the registry, and this is all eligible patients</td>
</tr>
<tr>
<td>Learning Disability Mortality Review Programme (LeDeR)</td>
<td>6/6 (100%)</td>
</tr>
<tr>
<td>Maternal, Newborn and Infant Clinical Outcome Review Programme (MBRRACE-UK: Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK)</td>
<td>17/17 (100%)</td>
</tr>
<tr>
<td>National Cardiac Arrest Audit (ICNARC: Intensive Care National Audit and Research Centre)</td>
<td>11/11 (100%)</td>
</tr>
<tr>
<td>Use of Fresh Frozen Plasma and Cryoprecipitate in Neonates and Children (National Comparative Audit of Blood Transfusion Programme)</td>
<td>21/21 (100%)</td>
</tr>
<tr>
<td>National Neurosurgical Audit Programme</td>
<td>Data is collected from mandatory national Hospital Episode Statistics</td>
</tr>
<tr>
<td>Seven Day Hospital Services Self-Assessment Survey (NHS England)</td>
<td>10/10 (100%)</td>
</tr>
<tr>
<td>Paediatric Intensive Care Audit Network (PICANet)</td>
<td>1896/1896 (100%)</td>
</tr>
<tr>
<td>Serious Hazards of Transfusion (SHOT) (UK National Haemovigilance Scheme)</td>
<td>21/21 (100%)</td>
</tr>
<tr>
<td>UK Cystic Fibrosis Registry (Cystic Fibrosis Trust)</td>
<td>191/191 (100%)</td>
</tr>
</tbody>
</table>

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1 www.england.nhs.uk/ourwork/qual-clin-lead/clinaudit/
The following national clinical audit reports with relevance to GOSH practice were published in 2018/19 from mandatory national audits:

<table>
<thead>
<tr>
<th>Name of national audit/clinical outcome review programme</th>
<th>Relevance to GOSH practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congenital heart disease including paediatric cardiac surgery (NICOR: National Institute for Cardiovascular Outcomes Research)</td>
<td>The 30-day survival rate for paediatric cardiac surgery is a nationally accepted benchmark that is used to judge outcomes. In the three years 2014 to 2017, there were 1885 cardiac operations performed at GOSH, of which 99.2% of patients survived to 30 days. The GOSH risk-adjusted survival rates for paediatric cardiac surgery are defined as ‘much higher than predicted’. More information about this can be found on the Cardiothoracic clinical outcomes page on the GOSH website.</td>
</tr>
<tr>
<td>Diabetes (Paediatric) (National Paediatric Diabetes Association)</td>
<td>The 2017/2018 report focuses on measuring care for type 1 diabetes patients. GOSH does not have sufficient numbers of typical type 1 diabetes patients to allow comparison of performance. 18.7% of GOSH cases included in the audit have complex forms of Type 1 diabetes in comparison to 98.1% of standard Type 1 and Type 2 diabetes in other centres. 81.3% of GOSH cases included are rare forms of diabetes.</td>
</tr>
<tr>
<td>Inflammatory Bowel Disease Registry</td>
<td>No paediatric data has been published by the IBD Registry at the time of writing. GOSH’s Gastroenterology service participates in Improve Care Now, an international collaboration between paediatric gastroenterology centres. The collaboration benchmarks improvement in quality and monitors clinical outcomes for children with inflammatory bowel disease. As part of the Improve Care Now initiative, GOSH has routinely collected data since 2011 and monitors specific IBD outcome measures including disease remission rates, nutrition and growth for the children we treat. More information about this can be found on the Gastroenterology clinical outcomes page on the GOSH website.</td>
</tr>
</tbody>
</table>
| National Cardiac Arrest Audit (NCAAA) (ICNARC (Intensive Care National Audit & Research Centre)) | The NCCA 2017/18 audit report was published in 2018/19 and reports the incidence and outcome of in-hospital cardiac arrest in order to inform practice and policy. The annual audit report has been reviewed by Resuscitation Services. The number of paediatric cardiac arrests nationally is approximately 250-300 per year. The interpretation of the data for GOSH is:  
  • There were 24 in-hospital cardiac arrests in 2017/18.  
  • GOSH has a higher incidence of cardiac arrests per 1000 hospital admissions (0.6 per 1000) than the four other standalone paediatric centres who participate in NCCA. This data is not risk-adjusted, so it does not take into account the severity of illness.  
  • Overall data from NCAA since 2011 indicate that GOSH has an excellent rate of survival to discharge for patients who have had a cardiac arrest. The actions that have been completed in the last year to support best practice in management of cardiac arrests were:  
  • Continued Clinical Emergency Team Simulation Training  
  • Re-organisation of the Clinical Emergency Team to improve efficiency and further embed quality cardiopulmonary resuscitation  
  • Increased numbers of resuscitation training places for all staff |

4 www.gosh.nhs.uk/health-professionals/clinical-outcomes/cardiothoracic-clinical-outcomes  
7 www.gosh.nhs.uk/health-professionals/clinical-outcomes/gastroenterology-clinical-outcomes
<table>
<thead>
<tr>
<th>Name of national audit/clinical outcome review programme</th>
<th>Relevance to GOSH practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paediatric Intensive Care Audit Network (PICANet)</td>
<td>The primary outcome measure used in Intensive Care Units (ICU) is the survival rate for patients, measured at the time when they are discharged. Raw survival/mortality rates may be challenging to interpret as patients admitted in a sicker condition are at greater risk, and therefore the outcomes need to be ‘adjusted’ to consider the level of severity of the patients in respect of case mix. The most recent PICANET report compares Trusts’ Standardised Mortality Ratio(^8) for the calendar years of 2015-17. The data in this report shows GOSH mortality as well within the expected range, factoring case mix. More information about this can be found on the Intensive Care Unit clinical outcomes page(^9) on the GOSH website.</td>
</tr>
<tr>
<td>Cancer in Children, Teens and Young Adults: On the Right Course?</td>
<td>The Cancer in Children, Teens and Young Adults report identifies areas for improvement nationally in the care of children and young people who receive chemotherapy. A GOSH consultant is the national clinical lead for this study. The recommendations in the report apply across care settings and care pathways. A GOSH Haematology/Oncology consultant is involved in the implementation of actions to achieve the recommendations with NHS England.</td>
</tr>
<tr>
<td>Child Health Clinical Outcome Review Programme (NCEPOD)</td>
<td></td>
</tr>
<tr>
<td>UK Cystic Fibrosis Registry (Cystic Fibrosis Trust)</td>
<td>The 2017 Cystic Fibrosis report was published in 2018/19 and includes data about individual cystic fibrosis centres, to help the centres benchmark themselves against their peers. The data shows that GOSH results for key clinical outcomes are within the expected range. More information about this can be found on the Cystic Fibrosis clinical outcomes page(^10) on the GOSH website.</td>
</tr>
</tbody>
</table>

**Specialty-led clinical audit**

131 clinical audits led by clinical staff were completed at GOSH during 2018/19. To promote the sharing of information, a summary of completed projects is published on the Trust's intranet and monthly reports of clinical audit activity are shared with the Patient Safety and Outcomes Committee. Our long term data suggests we are encouraging a culture of sharing our specialty-led clinical audit activity.

A full list of clinical audits completed in 2018/19, and their impact on quality and safety at GOSH, can be obtained on request by contacting the Clinical Audit Manager on 020 7405 9200 ext 5892 or by emailing clinical.audit@gosh.nhs.uk.

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\(^8\) Standardised Mortality Ratio (SMR)

The SMR is the ratio of observed deaths in the ICU compared to the expected number of deaths based upon the PIM2r score: the SMR is calculated periodically and is used as a method of benchmarking the outcomes between ICUs nationally via PICANet.

\(^9\) www.gosh.nhs.uk/health-professionals/clinical-outcomes/intensive-care-unit-clinical-outcomes

\(^10\) www.gosh.nhs.uk/health-professionals/clinical-outcomes/cystic-fibrosis-clinical-outcomes
Clinical audit prize

The Clinical Audit team developed a clinical audit prize in 2018/19 to promote, value, and incentivise clinical audit in the Trust.

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental and Maxillofacial</td>
<td>Alveolar bone grafting in patients with a cleft lip and palate</td>
<td>Audit highlighted excellent clinical outcomes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“This audit has demonstrated excellent treatment outcomes as well as effective and efficient patient care. As a department, we have learnt greatly from the audit results and will continue to persevere with maintaining and improving our current standards.”</td>
</tr>
<tr>
<td>Kangaroo and Leopard Wards</td>
<td>Ventilator prescriptions</td>
<td>Actions were taken to learn from incidents and to reduce risk. This is a nurse-led audit that resulted in clear improvements. “This has led to there being no clinical incidents surrounding ventilator prescriptions with inpatients. Nurses feel more empowered to be able to ask for a ventilator prescription if it is not present due to it being on the safety checklist. It is acknowledged amongst the medical team that every child on a ventilator must have a ventilator prescription and they have been more engaged in completing these as needed.”</td>
</tr>
<tr>
<td>Urology</td>
<td>Referral pathway for urodynamic requests</td>
<td>Clear improvements were made to benefit patient experience and safety, and this audit ‘closed the loop’. “We have achieved better resource utilisation and added multiple check-points, thus improving patient service and safety.”</td>
</tr>
</tbody>
</table>

“This idea of acknowledging audit work throughout the Trust is brilliant and am sure will encourage more good work.”

Urology Specialist Registrar
Learning from deaths

Death in childhood is a rare event. Whenever a child dies, it is important to reflect and to learn if anything could be done differently in the future.

The GOSH Mortality Review Group (MRG) is a multidisciplinary group of senior clinicians that conducts routine, independent structured case record reviews of all deaths that occur at GOSH. The MRG has been in place since 2012.

The purpose of the MRG is to provide a Trust-level overview of all deaths to identify themes and risks, and to take action as appropriate, to shape quality improvement activities in the Trust. This process is linked with local case reviews undertaken by specialty teams and provides an additional oversight of deaths in the Trust. The MRG reviews the patient care pathway to identify whether there are modifiable factors, and any learning for the Trust.

Deaths in 2018 and case record reviews

<table>
<thead>
<tr>
<th>2018</th>
<th>Jan-Mar</th>
<th>Apr-Jun</th>
<th>Jul-Sep</th>
<th>Oct-Dec</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of deaths</td>
<td>17</td>
<td>20</td>
<td>20</td>
<td>29</td>
<td>86</td>
</tr>
<tr>
<td>Modifiable factors</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

Between 1 January 2018 and 31 December 2018, 86 children died at GOSH. All of these deaths have been subject to a case record review as part of the investigative process of the MRG.

Five (5.8%) of the reviewed patient deaths had modifiable factors at GOSH that may have contributed to vulnerability, ill health or death.

No deaths in 2018 had modifiable factors at GOSH that provided a complete and sufficient explanation for death.

- Between 1 January 2018 and 31 December 2018, 86 children died at GOSH. All of these deaths have been subject to a case record review by the MRG.
- Five (5.8%) of the reviewed patient deaths had modifiable factors at GOSH that may have contributed to vulnerability, ill health or death. No deaths in 2018 had modifiable factors at GOSH that provided a complete and sufficient explanation for death.

*One death from 2017 was reported in the 2017/18 Quality Report as not being subject to a case record review, due to the case awaiting additional investigations before it could be reviewed. This case was reviewed in July 2018; no modifiable factors were identified*

Learning from clinical case reviews

The learning points from case record reviews are shared at the Patient Safety and Outcomes Committee, and at Trust Board. Modifiable factors identified outside of GOSH are shared with the Child Death Overview Panel (CDOP).

Where modifiable factors or other issues are identified about GOSH care, these are fed back to the relevant clinical team and/or directorate management team for action. The feedback mechanism will be determined based on the nature of the information to be shared, but could include a specialty case review meeting, email, and/or directorate management meeting.

Some key themes were identified, including the importance of clear communication between clinical teams, accurate documentation, and identification of the deteriorating patient in a timely manner.

In recognition of the Trust’s commitment to promoting learning lessons from child deaths, a plan to enhance and embed the organisational learning culture has been agreed as a Trust Quality Priority for 2019/20. This includes the introduction of a forum that aggregates learning from a range of sources, including CDOPs. The forum will support timely operational action to:

- Address any immediate process/infrastructure problems
- Triage education and communication on lessons learned into the most appropriate pathways

It is anticipated that the introduction of the Epic EPR system in 2019/20 will help to improve the quality of the medical record and communication between clinicians.

A working group has been established to implement the Child Death Review Statutory Guidance, which aims to help strengthen links with referring hospitals and the CDOPs to identify modifiable factors to help prevent future deaths.
Participation in clinical research

As one of the leading children’s research hospitals, children and young people are referred to GOSH from all over the world. They are often in need of treatment for the most complex and life threatening diseases. Working in partnership with the UCL Great Ormond Street Institute of Child Health (ICH), the hospital is the largest paediatric research and training centre in the UK and one of a very small number of internationally recognised centres of excellence in the field of child health.

The vision of GOSH as a research hospital is one where:

• Research is an integral part of the working lives of our staff and the patients and families we treat and see
• Research is fully integrated into every aspect of the hospital, to improve the treatment and outcomes for our patients
• We learn from every patient we see, using the knowledge gained to improve our patients’ health and the health of future patients
• Staff, patients and families understand the opportunity and importance of research (research is seen to benefit and not compromise NHS clinical activity)
• We support, value and train all those involved in research, and research is considered as a core component when recruiting to leadership positions across the organisation
• We lead the way in involving patients and families in research design, delivery and strategy and continue to develop creative ways to ensure equitable involvement
• All clinical directorates and services develop and own their research agenda and are supported to do this.

Research activity

During 2018/19, we have run 1,349 research projects at GOSH/ICH. Of these, 365 were adopted onto the National Institute for Health Research Clinical Research Network (NIHR CRN) Portfolio, a prestigious network that facilitates research delivery across the NHS. Our already extensive research activity has grown with an ever increasing focus on high intensity, experimental research since our most recent NIHR Clinical Research Facility (CRF) and Biomedical Research Centre (BRC) awards began in April 2017. These studies account for over 40% of those supported by the CRF but for 65% of the total patient hours. The intensity of care in delivering these studies in paediatrics translates into increased clinical time to deliver each study, often requiring regular overnight visits.

1www.nihr.ac.uk/research-and-impact/nihr-clinical-research-network-portfolio/
In 2018/19, over 3,800 patients and family members took part in research at GOSH, approved by the Health Research Authority, including Research Ethics Committee and Medicines and Healthcare Products Regulatory Agency approval as appropriate. In addition, GOSH leads the North Thames Genomic Medicine Centre (GMC), one of 13 regional centres that are responsible for coordinating the return of results for patients that were recruited to the 100,000 Genomes Project. This pioneering project aims to better understand and treat rare conditions and cancers and this year completed its recruitment phase. Over 23,000 genomes have been collected by the North Thames GMC (23% of all genomes collected nationally) including 5,674 rare disease and 296 cancer genomes collected at GOSH (2,244 in 2018/19). Across the North Thames GMC, we have completed the scientific analysis of over 1,200 reports for patients with rare disease (and their families) and over 500 reports for patients with cancer.

The Trust is making considerable progress against its objective to obtain generic consent from patients, allowing us to use clinical data and excess tissue for research. The pilot completed its initial outpatient phase in September 2017, moving to the next phase (inpatients) in July 2018, with further areas beginning to consent in 2019. The pilot phase indicated that the principle for generic consent was generally accepted by patients and families but indicated the need for face-to-face discussion about the scheme. To assist our teams with this communication, the Trust has commissioned a short animation to explain to patients what happens to their samples, with input from both our Young Person’s Advisory Group and Parent/Carer Research Advisory Group.
**Funding**

This year we saw an overall 25% growth in our research income to £25 million, which supports research infrastructure and projects across the Trust. This has been in part due to a higher than anticipated growth in commercial income of 13%, through attracting an increased number and value of commercial studies to the Trust as well as extensive work to improve the effectiveness of commercial income recovery. 2018/19 was the second (out of five) year of our third funding term of the NIHR GOSH Biomedical Research Centre (BRC) and of our new NIHR Clinical Research Facility.

**Innovation**

The Trust has established a GOSH Innovation Hub and an intellectual property (IP) oversight group to review our IP portfolio and make strategic recommendations to the Research and Innovation (R&I) Board for support of innovation with commercial potential. The Trust has a robust IP policy that supports the Trust’s objective to encourage the creation and successful commercialisation of innovation by GOSH employees, ensuring that GOSH effectively manages its IP and that revenue share arrangements to incentivise employees are transparent and well-managed. The Trust works with third party organisations with appropriate expertise, for example technology transfer offices to support its innovation activities, including commercialisation of IP.

A dedicated Business Development Manager based within the Division of R&I enables regular on-site access to our university partner and facilitates shared learning in the translational research space.

The Trust launched the Digital Research Informatics & Virtual Environment (DRIVE) in October 2018; a partnership with University College London (UCL) and leading industry experts in technology, artificial intelligence and digital innovation. The unit aims to revolutionise clinical practice and transform patient experience with new approaches to research and tailored care. This will be enhanced following the implementation of Epic, which has a specific research work stream with input from across R&I. This will allow much greater alignment across research and clinical practice, with clinical data extracted into the Trust’s Digital Research Environment, linked to a high-performance analytical platform in collaboration with Aridhia.

**Journal Publications**

With our academic partner, we publish over 1,000 papers a year; 700 from 1 April to 31 December 2018. In the five year period between 2012 and 2016, GOSH and ICH research papers together had the second highest citation impact of comparable international paediatric organisations.

**Research Highlights**

1. A new, targeted treatment for a rare genetic form of rickets called X-Linked Hypophosphataemia (XLH) became available to NHS patients in January 2019, just three and a half years after the clinical trial first started. The new drug, known as burosumab, is the first to specifically target the root cause of the condition. In the trial, which recruited several GOSH patients, children experienced less pain and showed improved growth rates.

2. GOSH and ICH researchers developed a sophisticated rapid genome sequencing technique that has helped quickly diagnose GOSH patients in intensive care. Results can be returned within four days. This enables doctors to make quicker decisions about treatment pathways and provide families with a diagnosis. It also reduces the time children have to spend in hospital and delivers savings by reducing the length of stays in our intensive care units.

3. Following the success of the cell therapy research programme at GOSH and ICH, GOSH recently became one of only three UK hospitals commissioned to offer a cutting edge CAR-T cell therapy to NHS patients with acute lymphoblastic leukaemia. The first NHS patient was treated with the therapy, known as Kymriah, in January 2019.

4. GOSH researchers grew the world’s first oesophagus engineered from stem cells and successfully transplanted them into mice. Within a week the engineered tissue developed its own blood supply. It is hoped this research could pave the way for clinical trials of lab-grown food pipes for children with congenital and acquired gut conditions such as oesophageal atresia.


14 GOSH citation impact = 1.997. The average citation impact is calculated from the number of citations for reviews and original papers normalised for research field and year of publication.
What is CQC?
The Care Quality Commission (CQC) is the independent healthcare regulator for England and is responsible for inspecting services to ensure they meet fundamental standards of quality and safety.

CQC registration
GOSH is required to register with the CQC and is currently registered, without conditions, as a provider of acute healthcare services. GOSH has not participated in any special reviews or investigations by the CQC in 2018/19.

In January 2018, the Trust obtained a CQC rating of ‘Good’ overall following an unannounced inspection of two (surgery and outpatients) out of the eight core services provided at GOSH. An additional unannounced inspection for the Well Led aspect was also conducted in the same period. The report was published in April 2018.

An action plan has been developed for 2019/20 that focuses on areas that received ratings of ‘Requires Improvement’. Oversight of progress against the actions is monitored through the directorates, and assurance is provided to the Board and Council of Governors. Executive directors and operational managers have been identified to respectively hold accountability and responsibility for achieving compliance with each element of the CQC registration standards. The Trust has commenced a programme of work to ensure overall compliance that is interlinked with quality, safety and experience as part of day-to-day culture across the Trust. This will be delivered through established programmes including:

- Weekly steering groups with Deputy Chiefs of Service
- In depth mock inspections (CQC Quality Rounds) in clinical directorates
- Directorate led self-assessments
- An assurance framework to provide sight of compliance performance from ward to board
- Gap analysis of information undertaken for the Routine Provider Information Return
- Reviews of potential areas/sources of learning, such as review of themes from CQC inspection and insight reports

Read more about our work on Well Led in our 2018/19 Annual Report.

Supporting nurses and allied health professionals in research activity
GOSH also hosts one of the few centres dedicated to supporting nurses and allied health professionals in research activity: The Centre for Outcomes and Experiences Research in Children’s Health, Illness and Disability (ORCHID). Professor Faith Gibson, Director of Research – Nursing and Allied Health, leads this centre, who along with Dr Kate Oulton, Dr Debbie Sell and Associate Professor Jo Wray, provides leadership to the Research and Clinical Academic Faculties within ORCHID.

This year has been another successful year with increased research and engagement activity, awards and capacity building as our team goes from strength to strength. Two of our allied health professionals (AHPs) were awarded prestigious Clinical Doctoral Fellowships from the National Institute for Health Research (NIHR). Speech and Language Therapist Alex Stewart and Physiotherapist Emma Shkurka will start their PhD studies in the summer, bringing our total number of NIHR funded Fellowships to seven, one of the highest of any NHS Trust in the country. One of our senior team members, Dr Kate Oulton, was awarded a place on the NIHR 70@70 Research Leadership Programme, for senior nurse/midwife clinical leaders with a record of developing existing practice and contributing to a research-rich environment. Furthermore, in conjunction with the Parent Support Group (the Cleft Lip and Palate Association, Ireland) the PLAT project, co-led by Dr Debbie Sell, which empowers parents to improve their child’s speech at home, received the Social Entrepreneurs Award, Ireland.

Our research collaborations are far-reaching. In conjunction with the GOSH Biomedical Research Centre, we held a Clinical Academic Careers training weekend for 35 nurses/AHPs from 10 organisations across London and are in the process of establishing a Pan-London support network. The Heart of the Matter, a Wellcome Trust funded public engagement project, co-led by Associate Professor Jo Wray, culminated in an exhibition visited by more than 20,000 people across the country. Professor Faith Gibson leads a workstream within the NIHR funded study BRIGHTLIGHT. Part of this work involved working with young people and a theatre company to co-produce a piece of performance art, ‘There is a Light’, performed to approximately 1600 people, with national and international coverage.

What is CQC? ©
The Care Quality Commission (CQC) is the independent healthcare regulator for England and is responsible for inspecting services to ensure they meet fundamental standards of quality and safety.

13 www.insidetheheart.org
14 www.brightlightstudy.com/
Use of the CQUIN payment framework

A variety of CQUINs have been undertaken by the Trust in 2018/19. Some of these are national indicators, which may also be undertaken by other trusts across the country, and some were locally defined in order to improve our individual performance. Due to the specialist nature of our care, some of the national CQUINs needed to be adapted to fit with the services we provide for our patients.

<table>
<thead>
<tr>
<th>CQUIN Reporting 2018/19</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CQUIN title</strong></td>
</tr>
<tr>
<td>Anti-Microbial Resistance/Sepsis</td>
</tr>
<tr>
<td>Child and Adolescent Mental Health Services – Long-Term Conditions</td>
</tr>
<tr>
<td>Cardiac Devices</td>
</tr>
<tr>
<td>Critical Care - Paediatric Networked Care</td>
</tr>
<tr>
<td>Haemtrack</td>
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<tr>
<td>Medicines Optimisation</td>
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<tr>
<td>Neuroscience Network</td>
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<tr>
<td>Enhanced Supportive Care</td>
</tr>
<tr>
<td>Severe Asthma</td>
</tr>
<tr>
<td>Transition Planning</td>
</tr>
<tr>
<td>Univentricular Home Monitoring</td>
</tr>
</tbody>
</table>

In 18/19 (as in 17/18), the total financial allocation for CQUINS was set at 2% of GOSH's NHS income (activity only). This equates to £4.9m for the 18/19 financial year. However, this value includes the Clinical Utilisation Review CQUIN, in which the Trust declined to participate (total value of £1.07m). The value of the individual CQUINs for the Trust ranged from £750,000 for Medicines Optimisation to £175,000 for Complex Device Optimisation. During Q1 to Q3 of the financial year, we reported high compliance against all our CQUIN indicator milestones. We expect to report approximately 98% compliance at year end. In 2017/18, our final monetary total for the CQUIN payment was £4 million.
Data quality

Good quality data is crucial to the delivery of effective and safe patient care. Data is vital to enable us to run our services efficiently as well as to identify any care quality issues and predict trends in order to take early action.

In March 2018, the Data Quality Review group signed off an updated data quality action plan, which focused on the improvement work needed during progression towards going live with the Epic system in April 2019. A monthly EPR Existing Systems, Data and Reporting Readiness Group supports data quality improvement work and planning across the programme to ensure the Trust’s position is robust in moving forward with Epic.

Highlights of the work completed in 2018/19 include:

**Information Services**
- Information Services reporting tools to support returns and internal monitoring dashboards
- Completion of the data warehouse audit
- Data warehouse standards have been defined
- Clear implementation of soft and hard stops for incomplete data and data entered outside of expected values where poor data quality affects reporting
- Establishment of multi-dimensional and comprehensive live data quality dashboard within the EPR system to flag data quality errors that drill down to patient level across the patient journey - referral, pathways, waiting list, outpatient and inpatient activities and patient demographics

**Data assurance**
- All members of the Data Assurance Team are trained as EPR super users within the key modules to support the EPR go-live period
- Links to training content and standard operating procedures (SOPs) are embedded within the EPR learning home dashboard and on the intranet
- Weekly and monthly targeted data quality training for front line users based on information from the data quality dashboard
- Establishment of data assurance audit methodology signed off by the Data Quality Review Group in September 2018
- Full validation of clock start information for all tertiary referrals received by the Trust means we now report less than 3% unknown clock starts as part of our referral-to-treatment pathway (RTT) data submissions
- Re-launch of RTT training in April 2018 and delivery of data quality principles as part of the course contents. We have now trained 97% of our core users
- Data Quality Review Group commissioned patient demographics training across the Trust in August 2018 to support data migration. We have trained 156 staff (September 2018 to January 2019). Patient demographics training content is now incorporated into EPR training materials and SOPs.

We have made good progress to improve our data quality to date, and work continues within the EPR project build to ensure safeguards are in place to minimise data quality risks.

The focus for 2019/20 is to continue to support front line staff on data quality in Epic and to ensure our clinical operational teams have access to timely and reliable information that will support business processes and decision making.
Secondary Uses Service
As required by NHS Digital, GOSH submitted records during 2018/19 to the Secondary Uses Service (SUS) for inclusion in the national Hospital Episode Statistics. These are included in the latest published data.

The table below shows key data quality performance indicators within the records submitted to SUS.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Patient group</th>
<th>Trust score</th>
<th>Average national score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusion of patient's valid NHS number</td>
<td>Inpatients</td>
<td>92.7%</td>
<td>99.4%</td>
</tr>
<tr>
<td></td>
<td>Outpatients</td>
<td>93.8%</td>
<td>99.5%</td>
</tr>
<tr>
<td>Inclusion of patient's valid General Practitioner Registration Code</td>
<td>Inpatients</td>
<td>99.5%</td>
<td>99.9%</td>
</tr>
<tr>
<td></td>
<td>Outpatients</td>
<td>99.8%</td>
<td>99.8%</td>
</tr>
</tbody>
</table>

Notes:

- The table reflects data from January 2019 at month 10 SUS inclusion date.
- Nationally published figures include our international private patients, who are not assigned an NHS number. Therefore the published figures are consequently lower at 92.7% for inpatients and 93.8% for outpatients.
- Figures for accident and emergency care are not applicable as the Trust does not provide this service.

Information governance
The Trust is in the process of finalising its first submission against the re-launched Information Governance Toolkit, the Data Security and Protection Toolkit (DSPT). This new system will allow us to demonstrate our position against the General Data Protection Regulations (GDPR) 2018 and outline the key requirements to maintain status as a ‘Trusted Organisation’ with regards to sharing NHS data.

While compliant with the mandatory requirements, some areas of improvement have been identified and an action plan is underway. Actions include:

- updating and embedding the process for accessing the privacy risks of proposed new uses of personal information (Data Protection Impact Assessments)
- ensuring the Trust has an accurate and up-to-date list of all personal information it holds and a review of the arrangements and checks for sharing personal information with external suppliers

Clinical coding
GOSH has a dedicated and highly skilled clinical coding team, which continues to maintain high standards of inpatient coding. The depth of coding continues to sit above the national average due to the complexity of our patients.

GOSH carries out quarterly internal specialty audits to ensure that accuracy and quality are maintained, that national standards are adhered to, and any training needs are identified.

The recent 2018/19 audit for the Data Security & Protection Toolkit (DSPT) showed results of over 98% accuracy for primary diagnostic coding, and 95% for primary procedure coding.

GOSH was not subject to a national Payment by Results clinical coding audit during the 2018/19 reporting period.

Priority clinical standards for seven-day hospital services
The seven-day services programme is designed to ensure patients that are admitted as an emergency receive high quality consistent care, whatever day they enter hospital.

GOSH does not have an accident and emergency department and therefore our ‘emergency’ workload relates to non-elective patients admitted directly from other hospitals into our critical care units.

For these unplanned critical care admissions, we participate in the NHS England seven-day service audit and self-assessment framework. The audit measures whether patients admitted as an emergency are seen by a consultant within 14 hours of arrival, and whether patients are subsequently seen twice daily by a consultant. Our audit data for 2018/19 shows that we meet all required clinical standards.
Vinnie, who’s two and a half, had surgery at GOSH earlier this year to remove a tumour from his brain. Since his operation, the physio team have been working with Vinnie to help him regain his balance and walk again. He loves playing with Lego™ and getting involved in music sessions in the playroom.
Promoting safety by giving voice to concerns

Speak Up Programme

One of GOSH’s key priorities is to eliminate avoidable harm to patients in our hospital. In the coming year, we are launching two new initiatives to support our work on harm-free care.

1. Speaking Up for Safety™ workshop
A focused workshop is being delivered across the organisation to equip, empower and support every one of our staff to ‘Speak Up for Safety’. The objective of the workshop is to develop staff insight and skills to respectfully raise issues with colleagues when concerned about a patient’s safety. In conjunction with the Medical Protection Society, we have trained and accredited 22 internal Safety Champions to support the programme and deliver the workshops to all staff across the Trust. Once complete, the workshop content will become part of Trust induction for all new staff, so the knowledge in our workforce is embedded and sustained in a culture of safety.

2. Promoting Professional Accountability™
At all times, we aim to provide a considerate and respectful environment for our staff and patients. To assist us in doing this, we will be introducing the Promoting Professional Accountability programme. Promoting Professional Accountability works hand-in-hand with the Speaking Up for Safety message. It provides a platform for staff to give feedback on colleagues who have either championed or undermined our Trust values, to ensure that great team working is recognised and difficult behaviours are discouraged.

Supporting staff to speak up

Being able to speak up about a concern in the workplace is an essential part of providing safe care for children and young people at GOSH. In line with other hospitals across the country, we have established a Guardian for the Freedom to Speak Up. This role is in conjunction with Freedom to Speak up Ambassadors, who work with the Guardian to provide support to any staff member across the hospital who wishes to raise a concern.

Support may be needed where a staff member wants to raise a concern about safety but doesn’t know how, or doesn’t feel comfortable to do so, or where a concern has been raised locally but the staff member feels it has not been taken seriously. The Freedom to Speak Up roles provide this additional layer of support to ensure that concerns are heard, explored, and any actions identified and acted upon.

Whistleblowing protection

Most issues raised by employees are easily resolved. However, there are times when concerns are of a more serious nature. The Trust has a policy that has recently been updated in line with national guidance, which provides a clear and easily accessible route for raising these types of concerns known as qualifying disclosures (also known as whistleblowing concerns). The policy also outlines a range of people who employees can raise concerns with even if they don’t fall under the definition of a whistleblowing concern, including the Freedom to Speak Up Guardians and Speaking Up for Safety™. The overarching aim of the policy is to demonstrate the Trust’s commitment to openness and accountability through:

• The provision of a safe environment to raise concerns at work
• Reassurance of employees that it’s safe and acceptable to speak up
• Reassurance of employees that they can raise a concern at an early stage and with clarity about the process
Reducing rota gaps for NHS doctors and dentists in training

Vacancy rates and rota gaps are a constant area of change within the organisation. They reflect the end point of multiple workforce issues, including short term unplanned absence, delays in recruitment process and rotational pathways, alongside a national reduction in the medical paediatric workforce.

Rota gaps have been highlighted as an organisational pressure and measures are being taken to mitigate the situation at GOSH. The Modernising Medical Workforce Group has been established through the Medical Director's Office in direct response to the issues impacting the medical workforce at local and national level. The group is designed to assist the Board and Executive Team in the recruitment, support and retention of doctors, with a focus on the sustainability of the medical workforce. The goal of the group is to problem-solve and think innovatively about the Trust-wide challenges facing the medical workforce. Rota gap pressures for our junior doctors is a particular focus.

We have become aware of the requirement for centralised 'real time' continuous data collection regarding vacancy rates that reflect rota gaps. Therefore we are currently developing a mechanism to capture this data to ensure that there is consideration to both the immediate and medium term impact of rota gaps across the organisation. In parallel to this, we are creating a clear plan for the escalation process to support doctors on rotas that have short-and medium-term vacancies. Below are 2018/19 vacancy rates, by end-of-quarter census across the organisation.

It is our experience that the impact of rota gaps is specific to each department and is dependent upon multiple factors including the number of doctors available in day-time hours, the use of advanced clinical practice roles and the overall rota establishment. Although the average organisational vacancy rate percentage is a useful metric, we currently anticipate and consider the direct impact of rota gaps upon each department, with a review of medical work flow and work schedules when necessary.
Maxwell, is three years old. He has a Berlin Heart and has been on the transplant list since 2018. He loves football (like his dad!) and playing with the little kitchen in the GOSH playroom.
Part 2c: Reporting against core indicators

Performance against Department of Health and Social Care quality indicators

NHS trusts are subject to national indicators that enable the DHSC and other institutions to compare and benchmark trusts. Trusts are required to report against the indicators that are relevant to them. The table below shows the indicators that GOSH reports against on a quarterly basis to our Trust Board and also externally. Where national data is available for comparison, it is included in the table.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>From local trust data</th>
<th>From national sources</th>
<th>GOSH considers that this data is as described for the following reasons:</th>
<th>GOSH intends to take the following actions to improve this score, and so the quality of its services, by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The percentage of staff who would be happy with the standard of care provided by the organisation if a friend or relative needed treatment.</td>
<td>88.2% 86.1% 90.4% 88.2% 94.8% 77.5% 89.7%</td>
<td>The survey is carried out under the auspices of the DHSC, using their analytical processes. GOSH is compared with other acute specialist trusts in England.</td>
<td>The key actions associated with addressing staff survey findings will be incorporated into the Integrated People Strategy – with its four pillars: Capacity, Infrastructure, Skills and Culture &amp; Engagement. The survey results indicate the need to prioritise the Culture &amp; Engagement pillar. This workstream’s purpose is to ensure all our people feel well led and managed, but also supported and empowered to do and be their best. The key components of this pillar are: Visible Leadership, Corporate Strategy &amp; Narrative, Creating an Employee Voice, Living Our Values, Creating Transparency &amp; Promoting Dialogue, and Integrating Support Services &amp; Networks. These are underpinned by Training &amp; Development and Internal Communications.</td>
<td></td>
</tr>
<tr>
<td>Percentage of staff who agreed that care of patients is the organisation’s top priority</td>
<td>84.2% 82% 88% 84.2% 92.7% 76.9% 75.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of staff saying they experienced at least one incident of bullying, harassment or abuse at work from managers in last 12 months</td>
<td>17.2% 17.1% 14.6% 17.2% 3.3% 27.2% 13.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of staff saying they experienced at least one incident of bullying, harassment or abuse at work from other colleagues in last 12 months</td>
<td>22.1% 20.8% 18.6% 22.1% 10.3% 28.4% 18.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of staff who consider the organisation acts fairly with regard to career progression / promotion, regardless of ethnic background, gender, religion, sexual orientation, disability or age</td>
<td>78.8% 81.3% 84.6% 78.8% 94.3% 60.8% 83.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Explanatory note on patient safety incidents resulting in severe harm or death**

It is mandatory for NHS trusts in England to report all serious patient safety incidents to the CQC as part of the CQC registration process. GOSH also reports its patient safety incidents to the NRLS, which runs a national database designed to promote learning.

There is no nationally established and regulated approach to reporting and categorising patient safety incidents. Different trusts may choose to apply different approaches and guidance to reporting, categorisation and validation of patient safety incidents. The approach taken to determine the classification of each incident, such as those ‘resulting in severe harm or death’, will often rely on clinical judgement. This judgement may, acceptably, differ between professionals. In addition, the classification of the impact of an incident may be subject to a lengthy investigation, which could result in the classification being changed. This complexity makes it difficult to do a formal comparison.

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### Indicator: Friends and Family Test (FFT) - % of responses (inpatient)

<table>
<thead>
<tr>
<th>Year</th>
<th>From local trust data</th>
<th>From national sources</th>
<th>GOSH considers that this data is as described for the following reasons:</th>
<th>GOSH intends to take the following actions to improve this score, and so the quality of its services, by:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018/19</td>
<td>2017/18</td>
<td>2016/17</td>
<td>Most recent results for Trust</td>
</tr>
<tr>
<td></td>
<td>Friends and Family Test (FFT) - % of responses (inpatient)</td>
<td>18.9%</td>
<td>24.6%</td>
<td>23.8%</td>
</tr>
</tbody>
</table>

### Indicator: Number of clostridium difficile in patients aged two and over

<table>
<thead>
<tr>
<th>Year</th>
<th>From local trust data</th>
<th>From national sources</th>
<th>GOSH considers that this data is as described for the following reasons:</th>
<th>GOSH intends to take the following actions to improve this score, and so the quality of its services, by:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018/19</td>
<td>2017/18</td>
<td>2016/17</td>
<td>Number of clostridium difficile in patients aged two and over (mean)</td>
</tr>
<tr>
<td></td>
<td>Number of patient safety incidents</td>
<td>6</td>
<td>11</td>
<td>1</td>
</tr>
</tbody>
</table>

### Indicator: Rate of C. difficile in patients aged 2 and over (number of hospital-acquired infections/100,000 bed days)

<table>
<thead>
<tr>
<th>Year</th>
<th>From local trust data</th>
<th>From national sources</th>
<th>GOSH considers that this data is as described for the following reasons:</th>
<th>GOSH intends to take the following actions to improve this score, and so the quality of its services, by:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rate of C. difficile in patients aged 2 and over (number of hospital-acquired infections/100,000 bed days)</td>
<td>10.3</td>
<td>18.8</td>
<td>1.79</td>
</tr>
</tbody>
</table>

---

**What is a mean?**

The mean is the average of a set of numbers. It is calculated by adding up all the values and then dividing the answer by the total number.
Part 3: Other information

NHS Improvement uses a limited set of national mandated performance measures, described in its Single Oversight Framework, to assess the quality of governance at NHS foundation trusts.

Performance is measured on an aggregate (rather than specialty) basis and Trusts are required to meet the appropriate threshold each month. Consequently, any failure in one month is considered to be a quarterly failure. The table below sets out the relevant national performance measures used to assess the Trust’s quality governance rating.

Performance against key healthcare targets 2018/19

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
<th>National threshold</th>
<th>GOSH performance for 2018/19 by quarter</th>
<th>2018/19 mean</th>
<th>Indicator met?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>All cancers: 31-day wait from decision to treat to first treatment</td>
<td>96%</td>
<td>97.87%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>All cancers: 31-day wait for second or subsequent treatment, comprising:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- surgery</td>
<td>94%</td>
<td>100%</td>
<td>93.33%</td>
<td>90.91%</td>
</tr>
<tr>
<td></td>
<td>- anti-cancer drug treatments</td>
<td>98%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Experience</td>
<td>Maximum time of 18 weeks from point of referral to treatment in aggregate -- patients on an incomplete pathway</td>
<td>92%</td>
<td>Apr: 93.62%</td>
<td>May: 93.64%</td>
<td>June: 92.59%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Jul: 92.76%</td>
<td>Aug: 92.85%</td>
<td>Sep: 92.24%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Jan: 92.59%</td>
<td>Feb: 92.18%</td>
<td>Mar: 92.24%</td>
</tr>
<tr>
<td>Experience</td>
<td>Maximum 6-week wait for diagnostic procedures</td>
<td>99%</td>
<td>Apr: 97.87%</td>
<td>May: 97.45%</td>
<td>June: 98.43%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Jul: 97.43%</td>
<td>Aug: 94.44%</td>
<td>Sep: 94.53%</td>
</tr>
<tr>
<td>Experience</td>
<td>Certification against compliance with requirements regarding access to healthcare for people with a learning disability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compliance against requirements</td>
<td>Achieved</td>
<td>Achieved</td>
<td>Achieved</td>
<td>Achieved</td>
</tr>
</tbody>
</table>

*Target based on meeting the needs of people with a learning disability, from recommendations set out in Healthcare for All (Department of Health, 2008)

†† Throughout the year, the Trust identified a number of poor administrative processes related to the booking of diagnostic tests, which resulted in an increase in the volume of breaches. Capacity has also been an issue. The Trust is currently working through a recovery plan to improve performance against this standard in 2019/20. **Source: NHS Digital

Additional indicators – performance against local improvement aims

In addition to the national mandated measures identified in the above tables, the Trust has implemented a range of local improvement programmes that focus on the quality priorities as described in Part 2a. The table below sets out the range of quality and safety measures that are reviewed at each Trust Board meeting. Statistical Process Control (SPC) charts are used to measure improvements in projects over time and to identify areas that require further investigation (see definition on page 19). All measures remain within expected statistical tolerance.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
<th>GOSH performance for 2018/19 by quarter</th>
<th>2018/19 mean</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>Central Venous Line (CVL) related bloodstream infections (per 1,000 line days)</td>
<td>1.7</td>
<td>1.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Inpatient mortality rate (per 1,000 discharges)</td>
<td>4.74</td>
<td>5.00</td>
<td>7.62</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>PICU discharges delayed by 8–24 hours</td>
<td>19</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>PICU discharges delayed by more than 24 hours</td>
<td>36</td>
<td>25</td>
<td>57</td>
</tr>
<tr>
<td>Experience</td>
<td>Discharge summary completion time (within 24 hours)</td>
<td>89.24%</td>
<td>87.18%</td>
<td>80.75%</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Last minute* non-clinical hospital cancelled operations and breaches of 28-day standard:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- cancellations</td>
<td>112</td>
<td>135</td>
<td>155</td>
</tr>
<tr>
<td></td>
<td>- breaches</td>
<td>13</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>Experience</td>
<td>Formal complaints investigated in line with the NHS complaints regulations</td>
<td>18</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>% of patients aged 0–15 readmitted to hospital within 28 days of discharge</td>
<td>1.63%</td>
<td>2.72%</td>
<td>2.24%</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>% of patients aged 16+ readmitted to hospital within 28 days of discharge</td>
<td>0</td>
<td>0</td>
<td>1.53%</td>
</tr>
</tbody>
</table>
Throughout the last year, the Trust continued work to improve the quality and robustness of our waiting list data, building on the work that had been completed over previous years. The

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
<th>National threshold</th>
<th>GOSH performance for 2017/18 by quarter</th>
<th>2017/18 mean</th>
<th>Indicator met?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>All cancers: 31-day wait from decision to treat to first treatment†‡</td>
<td>96%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>All cancers: 31-day wait for second or subsequent treatment, comprising:***</td>
<td>- surgery</td>
<td>94%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- anti-cancer drug treatments</td>
<td>98%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Experience</td>
<td>Maximum time of 18 weeks from point of referral to treatment in aggregate – patients on an incomplete pathway***</td>
<td>92%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Experience</td>
<td>Maximum 6-week wait for diagnostic procedures**</td>
<td>99%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Experience</td>
<td>Certification against compliance with requirements regarding access to healthcare for people with a learning disability</td>
<td>Compliance against requirements*</td>
<td>Achieved</td>
<td>Achieved</td>
<td>Achieved</td>
</tr>
</tbody>
</table>

Effectiveness Last minute* non-clinical hospital cancelled operations and breaches of 28 day standard:
- cancellations | 137 | 119 | 176 | 105 | 537 (total) |
- breaches | 14 | 7 | 27 | 24 | 72 (total) |
| Experience | Discharge summary completion time (within 24 hours) | 87.8% | 87.1% | 88.1% | 88.1% | 87.7% |

Additional indicators – performance against local improvement aims

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
<th>GOSH performance for 2017/18 by quarter</th>
<th>2017/18 mean</th>
<th>2017/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>CVL related bloodstream infections (per 1,000 line days)</td>
<td>1.57</td>
<td>1.47</td>
<td>1.31</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Inpatient mortality rate (per 1,000 discharges)**</td>
<td>8.8</td>
<td>5.7</td>
<td>6.7</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>PICU discharges delayed by 8–24 hours</td>
<td>**</td>
<td>**</td>
<td>32</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>PICU discharges delayed by more than 24 hours</td>
<td>**</td>
<td>**</td>
<td>43</td>
</tr>
<tr>
<td>Experience</td>
<td>Formal complaints investigated in line with the NHS complaints regulations***</td>
<td>29</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>% of patients aged 0–15 readmitted to hospital within 28 days of discharge†</td>
<td>1.93%</td>
<td>1.99%</td>
<td>2.23%</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>% of patients aged 16+ readmitted to hospital within 28 days of discharge†</td>
<td>0%</td>
<td>0%</td>
<td>0.81%</td>
</tr>
</tbody>
</table>

1 Target based on meeting the needs of people with a learning disability, from recommendations set out in Healthcare for All (Department of Health, 2008)

Quality Report 2018/19 57
Annex 1: Statements from external stakeholders

Statement from NHS England (London), Specialised Commissioning Team

NHS England would like to thank Great Ormond Street Hospital NHS Foundation Trust (GOSH) for the opportunity to review and provide a response to the 2018/19 Quality Account.

We continue to work together to address improvements in the quality of care and accessibility of services for those children whose healthcare needs are managed by GOSH.

NHS England reviews feedback from: patients and families, clinical quality review meetings and other external sources including the Care Quality Commission, Health Education England (North Central and East London), and Public Health England to inform decisions about where improvements are required. This year, the Trust itself has also undertaken to benchmark performance against some of its peers to identify opportunities for learning and improvement and we welcome this proactive reflection. Notable improvements include:

- A new system to replace the Friends and Family Test which has significantly improved the volume of responses received from service users
- Implementation of the PANDA system - designed to objectively assess the nursing dependencies and calculate safe nurse ratios for each ward area
- Improved recognition of deteriorating patients through implementation of Paediatric Early Warning System (PEWS)
- Better identification and management of children at risk of developing sepsis
- Improvements in the experience of patients requiring venous access
- The Growing Up Gaining Independence Programme, which addresses transition to adult services
- Reducing sample rejection rates in laboratories

The CQC report published in April 2018 identified two areas which require improvement; outpatients, and diagnostic imaging and surgery. NHS England will work with the Trust over the coming year to ensure that the action plans to address these priority areas are delivered. Whilst the Trust has made progress against the CQC Well-Led domain, this has been an area of significant discussion with NHS England and, it will remain as such so that the organisational changes that aim to improve the annual staff survey results are implemented.

The Trust has a busy year ahead; in addition to those mentioned above, priority areas include - assuring the stability of services following implementation of Epic, the electronic patient record which went live in April 2019, addressing any further improvements that may be identified following a scheduled review of surgery by the CQRG and, aligning processes with the new Child Death Overview Panel guidance.

Great Ormond Street Hospital is host to the newly established North Thames Paediatric Network and through the new leadership team, we are confident that this will enable stronger collaboration across Providers to improve the care of children and young people in the region.

Statement from Camden Health and Adult Social Care Scrutiny Committee

Disclaimer: The Health and Adult Social Care (HASC) Scrutiny Committee did not sit between the receipt of the draft quality report and the due date for comments. They could not therefore provide comments on the named quality report. The following statement was provided solely by the Chair of the HASC Scrutiny Committee, Cllr Alison Kelly, and they should not be understood as a response on behalf of the Committee.

Thank you for sending us your 2018/19 quality report for comment. The report is comprehensive.

The Trust is to be congratulated on the progress made in 2018/19 and for the dedication of so many GOSH colleagues who ensured that this happened.

Other Trusts have a specific section on key achievements and exciting developments during the year. Perhaps the Trust should, succinctly, celebrate its achievements a bit more loudly early on in its report.

The report has not been the easiest to comment on as it is an early draft without a contents page, without a statement of quality from the chief executive, and without the priorities and actions for 2019/20, for example.

The following observations were made in accordance with a set of core governance principles which guide the scrutiny of health and social care in Camden.

1) Putting patients at the centre of all you do
The report makes clear that ‘fulfilling our potential’ is the strategic focus of the Trust. ‘The child first and foremost’ is the pinnacle. This is excellent.

2) Focussing on a common purpose, setting objectives, planning
Pages 6-13 under the heading ‘Our strategy’ cover a range of important topics but it is not always immediately clear how the individual topics on these pages link to the Trust’s strategic focus.

The Trust may want to consider how it initially describes its strategy to make clear that helping children and young people with the most complex needs to fulfil their potential is the absolute priority of the Trust.

The report contains six clear, patient focused priorities which were taken forward during 2018/19. The priorities are narrower and less strategic than in some other Trusts.
Action taken and progress made is detailed. As are the next steps, which is very helpful. However the Trust should give further consideration to the audience of the report as too much detail can get in the way of understanding.

Ideally the national audit and clinical outcomes review programme should be linked to priorities.

It is unclear what the priorities are for 2019/20. They may be included but are difficult to locate without a context page.

3) Working collaboratively
The Trust demonstrates that it takes seriously working with, listening to and learning from patients, their families and carers. The progress made is positive. The Trust may want to consider a more holistic approach, which encompasses cultural change, in future.

Following the disappointing 2018 staff survey result it is positive to see the steps the Trust is taking to improve clarity of leadership and reduce the gap between leaders and frontline services.

We know that GOSH takes seriously collaboratively working with Camden Council and across other local sectors to achieve the best possible outcomes and experience. Perhaps progress can be reported in the next quality account.

We also know that the Trust takes exceedingly seriously its work with national and international partners, and it is pleasing to read about the Trust’s participation in clinical research. The report would benefit from reflection on any other areas where there is collaboration.

4) Acting in an open, transparent and accountable way - using inclusive language, understandable to all - in everything it does
The 2018 CQC inspection is mentioned in the section on CQC registration and in Annex 2 of the report. The inspectors rated services as outstanding - effective and caring. Many sincere congratulations indeed.

However, ‘Well Led’ aspects which required improvement by CQC are not covered in the report. Only future processes to be followed are covered, which are not linked to the specific issue. Below average staff ratings in the quality indicators confirm the CQC results.

Some clearer actions are covered in the final column of the core indicators table, but the lack of clarity and transparency is disappointing and concerning.

There is some excellent practice in NCL in relation to these reports. It might be worth sharing good practice in this report and also learning from others.

We would like to finish by thanking GOSH for its huge commitment to putting the child first and always. And for all the hard work by so many, including volunteers, frontline staff, clinicians, the leadership team and board members. Your dedication is inspirational and hugely appreciated.

Councillor Alison Kelly
Chair of Health and Adult Social Care Scrutiny Committee

GOSH response to statement from Camden Health and Adult Social Care Scrutiny Committee

The Trust wishes to thank Cllr Kelly for taking the time to give feedback. We are grateful for the recognition of our ongoing work to continuously improve the care we provide to our children and young people. The suggestions of improvements to the report are helpful and we have either applied these or will do so in forthcoming years. We respond below to specific topics referenced by Cllr Kelly:

Strategy
We are currently doing a piece of work to hone our strategy under the new leadership team, which includes workshops with staff and clarification of specific deliverables that map to our quality domains. Greater clarity about priorities should therefore be evident in the 2019/20 Quality Report.

Leadership and staff experience
We recognise from a range of feedback sources that staff engagement and wellbeing need to be improved. We are committed to addressing these issues and improving the experience of our staff, including their sense of being valued and supported.

The Trust is currently in the process of developing a comprehensive People Strategy, which will encompass engagement from a wide range of staff in different roles across the organisation. The strategy will aim to address cultural issues identified in the CQC report, staff survey and other staff feedback mechanisms.

The Chief Nurse and Medical Director are attending the Health and Adult Social Care Scrutiny Committee in July and will be pleased to present in more detail our progress with strategy and improving the experience of our staff. We will also report these in detail in the 2019/20 Quality Report.

Statement from Healthwatch Camden

Healthwatch Camden thanks the Trust for the opportunity to comment on your Quality Accounts. It is always good to learn more about your important work. However, we are not making a formal comment on Quality Accounts this year. This decision should not be seen as any lack of interest in or support for your work. Pressure of other work in the context of falling core income and increased complexity in the local NHS means that we do not have the human resources to consider Quality Accounts in the detail that they deserve this year. We look forward to commenting in future years.
Feedback from members of the Council of Governors

Comments from Public governor, north London and surrounding area:
An entire year has passed since I last reviewed the GOSH annual report and evidently much progress has been made. The delivery of the national Referral to Treatment target which has saved the Trust £12.3M is truly commendable. Plans to save over £20M the following year are also very reassuring to read, and something I trust will be followed through. The implementation of the EPR system is a great contributing factor to the technological advancement the Trust is currently experiencing. The initiatives taken by the Trust to ensure inclusivity of its staff is greatly appreciated and an area I hope progress continues to be made in. It is very heartening to read about the Trust’s commitment to the quality priorities, which for this past year are significant, and the introduction of the PEWS system is noted and commended. The focus that has been placed on ordering and delivering chemotherapy more efficiently is also lauded and a priority that I hope will continue to be delivered upon.

The introduction of a paediatric VHP framework as promised is welcomed. The fear of venous access is often a major hindrance in the recovery of young patients and the Trust’s emphasis on this has and will continue to improve the efficiency of treatment and patients’ experience. The digital logging of relevant information on the ePSAG and Epic systems has improved efficiency and accessibility to data for all staff - a measure that supports efficient inter-departmental communication. The decrease in cannulation attempts from 1.9 attempts per child to 1.2 is a notable improvement, and a figure I’d like to see further improvement on the following year. There has been a significant decrease in the number of extravasation injury referrals from an average of 12 to 5 per month – an excellent improvement. The plans for standardisation of the new framework are also sensible - this will prove sufficiently informative when combined with the introduction of the e-learning package and training video for doctors.

Having commented on the effectiveness of the PEWS system in the previous year’s report, it is reassuring to read that the Trust has followed through on its commitment to improve the early recognition of deteriorating condition, especially the early signs of sepsis. It is reassuring to read that PEWS was successfully launched and that training was well received. The accessibility of the Early Warning Dashboard to hospital, ward and patient is fundamental to increasing awareness at all levels. The increase in percentage of completed observations from 62% to 75% is heartening and a figure I anticipate will be greater in the following year, with the PEWS system in place. The Trust’s work to develop a national PEWS tool is welcomed and will greatly impact the wider NHS.

The efficient administration of chemotherapy is vital to providing world class cancer care. The results of the baseline audit in October 2018 which indicate that the number of phone calls to the chemotherapy unit have decreased from 40-60 phone calls per day to 0 following the implementation of Chemotracker are truly commendable.

To conclude, the Trust has had another busy year with much success. The developments and standardisation of frameworks will continue to ensure the Trust works towards fulfilling its ‘always’ ethos, and it is incredibly heartening to read about the great progress made from last year particularly in technological implementation. On behalf of the governing body, I’d once again like to thank the Trust for its extensive, sustained efforts in providing outstanding care to its patients and its manifest commitment to putting the child ‘first and always’.

Comments from Staff governor:
I am a new Governor in what has been an exciting time for GOSH. 2018/19 has been dominated by preparations for Epic, our new Electronic Patient Record (EPR) system. This is a massive project to build a unified IT system for all of our patient-related activity, replacing the large number of smaller systems which had previously been in place. The whole Trust has been involved, from the front line point-of-care teams, through to back office functions such as Finance.

The system will have everything in one place; where, in the past, families would have phone calls from several different departments, in another, now our staff will have what they need in one place at the click of a mouse. This will improve safety (for example, reducing medication errors) and the service we provide to our patients and families. It will also allow for efficiencies and automation, such as test results automatically being returned as a message to clinicians and filed under the patient’s notes, rather than staff having to chase results.

From a Governor’s perspective, I have been reassured to see the diligence and care that has gone into the preparations for the system’s implementation. The team directly working on the project were a mix, with a large contingent being current staff who were seconded to the project. This meant there was a deep level of local knowledge and, crucially, strong input from our Nursing and Medical teams. Due to the vital nature of the project it is discussed at several assurance committees, as well as at Trust Board.

No implementation will be glitch free, but I am content that the Trust has done a great job in preparing for the next step in GOSH’s mission to provide excellent care to its patients.
The other main issue I would identify is the work that the Trust is doing around staff engagement and the organisational culture. This year the Trust carried out a survey to get the views of staff. This was sent to every staff member. The results were not always what one might want to see and small pockets of inappropriate behaviour were identified.

It is sad that this has been the situation, but I am fully convinced that the Board, and especially the Chairman and Chief Executive are absolutely committed to remedy the situation and improve the working lives of staff in those areas and ensure that all of the hospital lives up to our Always Values at all times. The Council of Governors stands full square in support of this aim. A great deal of work has already gone in to improving the experience of staff, including the creation of staff forums, which you can read about on pages 12-13 of this report.

The final thing I will highlight is GOSH’s focus on research and the future. The 100,000 Genomes project closed to recruitment this year. This large national research study hopes to unlock information coded into the human genetic makeup to inform management and treatment of a huge range of conditions. It will have particular impact on rare diseases, which GOSH specialises in. GOSH was the largest single recruiter of families to the project, something we can certainly be proud of.

This is in line with our aim to become a Research Hospital, where research is completely integrated with the care we provide, so that we can offer cutting-edge treatments to our patients and maximise clinical outcomes. To this end, we have opened the Digital Research and Informatics Unit (DRIVE), which brings together healthcare experts, researchers and other partners to develop exciting new devices and systems to advance the care provided to patients. This is an exciting initiative and I am sure that it will lead to many future developments.

To conclude, it has been a very busy year for the Trust, with a lot happening and a lot yet to do. We have an energised Board, showing great leadership and I think the coming year will be one where we see GOSH making excellent progress.
External assurance statement

Independent auditor’s report to the Council of Governors of Great Ormond Street Hospital for Children NHS Foundation Trust on the Quality Report.

We have been engaged by the council of governors of Great Ormond Street Hospital for Children NHS Foundation Trust to perform an independent assurance engagement in respect of Great Ormond Street Hospital for Children NHS Foundation Trust’s quality report for the year ended 31 March 2019 (the ‘quality report’) and certain performance indicators contained therein.

This report, including the conclusion, has been prepared solely for the council of governors of Great Ormond Street Hospital for Children NHS Foundation Trust as a body, to assist the council of governors in reporting Great Ormond Street Hospital for Children NHS Foundation Trust’s quality agenda, performance and activities. We permit the disclosure of this report within the Annual Report for the year ended 31 March 2019, to enable the council of governors to demonstrate they have discharged their governance responsibilities by commissioning an independent assurance report in connection with the indicators. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the council of governors as a body and Great Ormond Street Hospital for Children NHS Foundation Trust for our work or this report, except where terms are expressly agreed and with our prior consent in writing.

Scope and subject matter

The indicators for the year ended 31 March 2019 subject to limited assurance consist of the national priority indicators as mandated by NHS Improvement:

- Maximum time of 18 weeks from point of referral to treatment in aggregate – patients on an incomplete pathway; and
- Maximum waiting time of 31 days from decision to treat to first treatment for all cancers.

We refer to these national priority indicators collectively as the ‘indicators’.

Respective responsibilities of the directors and auditors

The directors are responsible for the content and the preparation of the quality report in accordance with the criteria set out in the ‘NHS foundation trust annual reporting manual’ issued by NHS Improvement.

Our responsibility is to form a conclusion, based on limited assurance procedures, on whether anything has come to our attention that causes us to believe that:

- the quality report is not prepared in all material respects in line with the criteria set out in the ‘NHS foundation trust annual reporting manual’ and supporting guidance;
- the quality report is not consistent in all material respects with the sources specified in section 2.1 of the NHS Improvement Detailed guidance for external assurance on quality reports 2018/19; and
- the indicators in the quality report identified as having been the subject of limited assurance in the quality report are not reasonably stated in all material respects in accordance with the ‘NHS foundation trust annual reporting manual’ and the six dimensions of data quality set out in the ‘Detailed guidance for external assurance on quality reports’.

We read the quality report and consider whether it addresses the content requirements of the ‘NHS foundation trust annual reporting manual’ and supporting guidance, and consider the implications for our report if we become aware of any material omissions.

We read the other information contained in the quality report and consider whether it is materially inconsistent with:

- board minutes for the period April 2018 to 23 May 2019;
- papers relating to quality reported to the board over the period April 2018 to 23 May 2019;
- feedback from Commissioners,
- feedback from governors,
- feedback from local Healthwatch organisations,
- feedback from Overview and Scrutiny Committee,
- the trust’s complaints report published under regulation 18 of the Local Authority Social Services and NHS Complaints Regulations 2009,
- the 2018 national staff survey,
- the 2017 national inpatient survey,
- the Head of Internal Audit’s annual opinion over the trust’s control environment, dated 22 May 2019;
- the Care Quality Commission inspection report dated 6 April 2019; and
- any other information included in our review.

We consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with those documents (collectively the ‘documents’). Our responsibilities do not extend to any other information.

We are in compliance with the applicable independence and competency requirements of the Institute of Chartered Accountants in England and Wales (ICAEW) Code of Ethics. Our team comprised assurance practitioners and relevant subject matter experts.

Assurance work performed

We conducted this limited assurance engagement in accordance with International Standard on Assurance Engagements 3000
(Revised) – ‘Assurance Engagements other than Audits or Reviews of Historical Financial Information’ issued by the International Auditing and Assurance Standards Board (‘ISAE 3000’). Our limited assurance procedures included:

- evaluating the design and implementation of the key processes and controls for managing and reporting the indicators;
- making enquiries of management;
- testing key management controls;
- reviewing the process flow of the indicator with management;
- limited testing, on a selective basis, of the data used to calculate the indicator back to supporting documentation;
- comparing the content requirements of the ‘NHS foundation trust annual reporting manual’ to the categories reported in the quality report; and
- reading the documents.

A limited assurance engagement is smaller in scope than a reasonable assurance engagement. The nature, timing and extent of procedures for gathering sufficient appropriate evidence are deliberately limited relative to a reasonable assurance engagement.

Limitations

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining such information.

The absence of a significant body of established practice on which to draw allows for the selection of different, but acceptable measurement techniques which can result in materially different measurements and can affect comparability. The precision of different measurement techniques may also vary. Furthermore, the nature and methods used to determine such information, as well as the measurement criteria and the precision of these criteria, may change over time. It is important to read the quality report in the context of the criteria set out in the ‘NHS foundation trust annual reporting manual’ and supporting guidance.

The scope of our assurance work has not included governance over quality or non-mandated indicators which have been determined locally by Great Ormond Street Hospital for Children NHS Foundation Trust.

Basis for qualified conclusion

Percentage of incomplete pathways within 18 weeks for patients on incomplete pathways at the end of the reporting period

The “percentage of incomplete pathways within 18 weeks for patients on incomplete pathways at the end of the reporting period” indicator requires that the NHS Foundation Trust accurately record the start and end dates of each patient’s treatment pathway, in accordance with detailed requirements set out in the national guidance. This is calculated as an average based on the percentage of incomplete pathways which are incomplete at each month end, where the patient has been waiting less than the 18 week target.

Our procedures included testing a risk based sample of 20 items, and so the error rates identified from that sample should not be directly extrapolated to the population as a whole.

We identified a number of issues during testing (with some samples having more than one issue). We noted the following errors:

- Two instances of invalid pathways;
- One instance of an incorrect clock start being recorded and two instances of a clock stop being recorded incorrectly. Monthly reporting was affected in the case of one clock stop;
- One instance of the pathway being attached to the wrong specialty. Monthly reporting was unaffected.
- Two instances of insufficient support for the start date recorded due to missing date stamps on referral documents. For one sample we were able to confirm reporting is unaffected based on the earliest possible start date per referral letter, for the second we were unable to confirm whether reporting was affected; and
- Three further instances of incorrect reporting, whereby the number of active patients on the waiting list was over/ understated as a result of late processing of the clock stop/start dates.

As a result of the issues identified, we have concluded that there are errors in the calculation of the “maximum time of 18 weeks from point of referral to treatment in aggregate – patients on an incomplete pathway” indicator for the year ended 31 March 2019. We are unable to quantify the effect of these errors on the reported indicator.

The ‘Performance against key healthcare targets 2018/19’ section on page 56 of the Trust’s Quality Report details the actions that the NHS Foundation Trust is taking to resolve the issues identified in its processes.

Qualified conclusion

Based on the results of our procedures, except for the matters set out in the basis for qualified conclusion section of our report, nothing has come to our attention that causes us to believe that, for the year ended 31 March 2019:

- the quality report is not prepared in all material respects in line with the criteria set out in the ‘NHS Foundation Trust Annual Reporting Manual’;
- the quality report is not consistent in all material respects with the sources specified in 2.1 of the NHS Improvement Detailed requirements for external assurance for quality reports 2018/19; and
- the indicators in the quality report subject to limited assurance have not been reasonably stated in all material respects in accordance with the ‘NHS Foundation Trust Annual Reporting Manual’ and supporting guidance.

Deloitte LLP
St Albans, United Kingdom
23 May 2019
Statement of directors’ responsibilities for the Quality Report

The directors are required under the Health Act 2009 and the National Health Service (Quality Accounts) Regulations to prepare Quality Accounts for each financial year.

NHS Improvement has issued guidance to NHS foundation trust boards on the form and content of annual quality reports (which incorporate the above legal requirements) and on the arrangements that NHS foundation trust boards should put in place to support the data quality for the preparation of the Quality Report.

In preparing the Quality Report, directors are required to take steps to satisfy themselves that:

- The content of the Quality Report meets the requirements set out in the NHS Foundation Trust Annual Reporting Manual 2018/19 and supporting guidance Detailed Requirements for Quality Reports 2018/19.
- The content of the Quality Report is not inconsistent with internal and external sources of information including:
  - board minutes and papers for the period April 2018 to May 2019
  - papers relating to Quality reported to the board over the period April 2018 to May 2019
  - feedback from commissioners dated 14/05/2019
  - feedback from governors dated 24/04/2019
  - feedback from Camden Healthwatch organisation dated 08/05/2019
  - feedback from Camden Health and Adult Social Care Scrutiny Committee dated 08/05/2019
  - the trust’s complaints report published under regulation 18 of the Local Authority Social Services and NHS Complaints Regulations 2009, dated May 2019
  - National Paediatric Outpatient Survey 2016
  - Children and Young People’s Inpatient and Day Case Survey 2016
  - the national NHS Staff Survey 2018
  - the Head of Internal Audit’s annual opinion of the trust’s control environment dated 22/05/2019
  - CQC inspection report dated 06 April 2018
- The Quality Report presents a balanced picture of the NHS foundation trust’s performance over the period covered.
- The performance information reported in the Quality Report is reliable and accurate.
- There are proper internal controls over the collection and reporting of the measures of performance included in the Quality Report, and these controls are subject to review to confirm that they are working effectively in practice.
- The data underpinning the measures of performance reported in the Quality Report is robust and reliable, conforms to specified data quality standards and prescribed definitions, is subject to appropriate scrutiny and review.
- The Quality Report has been prepared in accordance with NHS Improvement’s annual reporting manual and supporting guidance (which incorporates the Quality Accounts regulations) as well as the standards to support data quality for the preparation of the Quality Report.

The directors confirm to the best of their knowledge and belief they have complied with the above requirements in preparing the Quality Report.

By order of the board

22 May 2019
Chairman

22 May 2019
Chief Executive
Thank you to everyone who was interviewed for, or gave permission for their picture to be used in, this report, as well as the many members of Great Ormond Street Hospital staff who helped during its production.

The Annual Report and Accounts is available to view at www.gosh.nhs.uk.

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