

Bristol Royal Hospital for Children Annual Review 2018/19







Welcome from the leadership team

Welcome to our annual review of children's services at University Hospitals Bristol NHS Foundation Trust for 2018/19. We hope you enjoy reading it and that it gives you a flavour of who we are and what we do.

At the Bristol Royal Hospital for Children (BRHC), we have an extremely wide range of clinical specialties. All of our services aim to deliver the highest quality of care we can to Bristol, the South West region and beyond. We are a centre of excellence for paediatric care and we strive for continuous improvement in the care we offer. Throughout this review, we will share some highlights with you from across our clinical and supporting services, as well as reflecting on our key challenges and sharing our long term plans.

We have had a truly fantastic year here in the children's hospital. There have been a remarkable number of achievements, both from teams and individuals, making us very proud to be part of such a vibrant and forward thinking team. One thing all our achievements have in common is that they are based on innovative, creative thinking which extends the limits of what has been done before.

Our roles are complex, exciting, challenging and definitely never boring! We are extremely proud to work with the 1800 staff who make up our children's services. Every day, we see individuals and teams striving to do their upmost to care for the babies, children and teenagers of Bristol, its surrounding areas and those who come from further afield.

We offer world class services delivered by world class teams, made up of a multitude of professions, professionals and volunteers. Every day, we are at the cutting edge of



medical advances and research that is changing the lives of patients for the better. We are grateful to the support of our charity partners, who enable us to do so much.

We are absolutely delighted that in August 2019, the Care Quality Commission rated children's services at the Trust as Outstanding. This reflects the hard work, care, compassion and dedication that we see every day across our children's services.

We will continue to do our very best for your children.

Ian Barrington,

Divisional Director, Women's and Children's Services

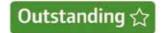
Martin Gargan,

Clinical Chair, Women's and Children's Services

Mark Goninon

Head of Children's Nursing





Who are we?

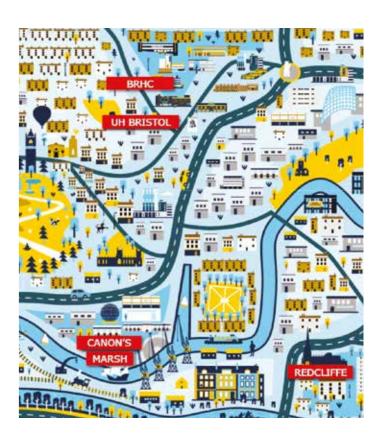
We are **your** Bristol Royal Hospital for Children.

We are **one of the leading children's hospitals in the UK**. We look after the secondary care needs of our local paediatric population in Bristol and the surrounding areas, and are a tertiary and major trauma centre for children across the South West of England.

We cover one of the largest geographical areas of any children's hospital in England. Our region extends from Cheltenham in the north, Swindon in the east and to Truro in the south; and encompasses a paediatric population of 933,000 children under the age of 16 years, that increases significantly during the holiday season. We also provide supra-regional (care beyond the region) critical, renal transplantation and congenital heart disease care for paediatric patients in South Wales.

We are proud to be part of our city, and we strive to provide the highest quality of care to our patients.

Your children are our priority and we are here for them, from birth to their teenage years and transition to adulthood.







Your Bristol Royal Hospital for Children 2018/19

1800 Staff within children's services

Junior doctors 851
Nursing staff

175 Senior doctor

18

Allied health professionals

Administrative staff

Clinical psychologists

The only

dedicated

Children's emergency department in the South West

Some of the Dest

major trauma outcomes for babies and children in England

We treated

3510

inpatients and undertook

10,020 day cases

118,843

outpatient contacts on site

We are extremely proud of our **staff engagement scores**, which improved on the previous year's

£96.9M

Budget 2018/19

with a cost improvement target of £2.8 million, approximately 2.5% of the division's overall turnover



45,693

Children's emergency department attendances

12,163
Emergency and non

Emergency and non elective patients

.........

290
Paediatric major trauma patients

We have

182

inpatient, day care and critical care beds and

cots on the neonatal intensive care unit

We have

paediatric theatres

We are one of the top

six

We are the

children's hospitals in England

paediatric major trauma centre

for the South West





University Hospitals Bristol

Our 2018/19 highlights



We saw more patients than ever before in our children's emergency department in under four hours, despite an increase of 11% in attendances compared to 2017/18



Every month during August to April 2018/19, we reduced the % of nurses leaving and needing to be replaced, due to the success of our children's nursing recruitment, retention and wellbeing strategy



We led ground breaking vaccine, rheumatology & pneumonia research



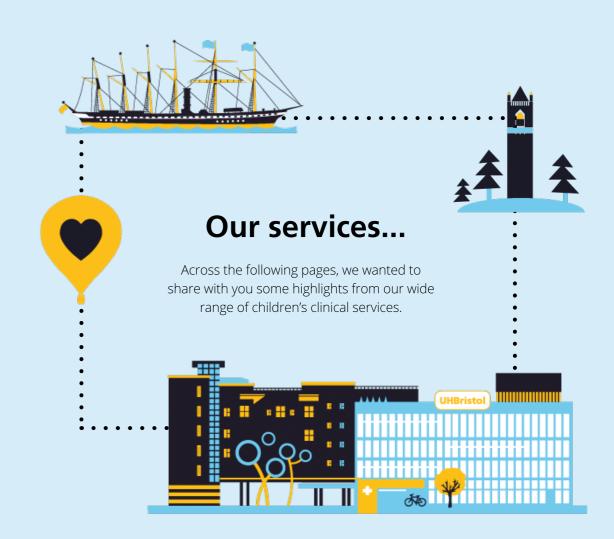
The children's emergency department's criteria led discharge programme was nominated for the Health Services Journal awards in 2019



Clinicians in BRHC led on creating global best practice guidelines for neonates, children and teenagers governing stoma care



Paul's House opened in April 2018, funded by The Grand Appeal, providing additional home from home accommodation for families of our critical care patients





Oncology, haematology and bone marrow transplants

- We underwent external peer reviews in haematology and oncology, the outcomes of which were successful
- We achieved blood and marrow transplant Joint Accreditation Committee ISCT-Europe & EBMT (JACIE) accreditation
- We received £2.2 million funding from Cancer Research UK for the new ALL Together paediatric trial for Acute Lymphoblastic Leukaemia (ALL)
- One of our consultants is the primary investigator for the UK for this study, which aims to improve survival rates and quality of life for children and young adults who survive with ALL

Diabetes, obesity, endocrinology and osteogenesis imperfecta

- Our diabetes service continues to grow, delivering specialised care to over 450 patients
- We have a leading paediatric obesity service that has gained a lot of attention: we have aided in documentaries and our research is internationally recognised
- Our highly specialised OI (osteogenesis imperfecta or 'brittle bones') service cares for children from all over the country



- One child under our care was given life changing surgery, as our surgeons were able to put a rod in every long bone in his body. This type of surgery has allowed children affected by this condition to walk again, vastly improving their quality of life
- Representatives of the paediatric endocrinology team went to Athens to give oral presentations and poster talks to an international audience of the European Society of Paediatric Endocrinology and Diabetes



Children's emergency department

Our children's emergency department (CED) is the only dedicated paediatric department in the South West and sees patients from all over the region. During 2018/19, the CED team has had three stand out areas of achievement:

- Wellbeing
- Criteria led discharge
- Research

We have been working hard to support staff wellbeing. Wellness achievements in the department include: a growing culture of caring for our staff; the introduction of ice cream rounds, which are wellness rounds (yes with ice cream!) to support doctors in training to discuss issues that are not strictly clinical; development of TRiM (Trauma Risk Management) in order to support staff who have been involved in traumatic events; the roll out of 'GREATix',

a system for positive incident reporting; and the continuing development of the You Got This' programme of staff support.

Criteria Led Discharge (CLD) was started in the CED and has now spread to other areas of the children's hospital. CLD is a protocolised discharge process that empowers nurses to discharge pre-identified patients, supporting flow in the department and reducing levels of crowding. Our practice in this area has continued to develop in the department. We use CLD for a broad range of clinical conditions, in order to improve the quality of patient care and patient experience, to enhance staff engagement and reduce the time it takes to process a discharge from a hospital perspective.

We have also undertaken a broad range of exciting research projects. There are more details on this in the research section of the review!

National and international reputation for:

- Paediatric emergency research
- Quality improvement
- Education and training
- Child safeguarding
- Paediatric major trauma
- Staff wellbeing











Allergy

- The allergy service has been working to improve patient and family experience. One focus has been to ensure patients with allergy care needs are seen as quickly as possible
- In 2018/19, the team has worked to significantly reduce the food challenge waiting list, which has come down from around six months to around eight weeks: a huge improvement!

Outpatient services and clinical investigation unit

 In 2018/19, we have modernised how our Clinical Investigation Unit, called Puzzle Wood, works and have made it more nurse-led

- We have extended its opening hours and have introduced more protocol driven care
- As a result, we have been able to increase our income into the unit and become much more efficient!

Community nursing & paediatric outpatient parenteral antimicrobial therapy (OPAT)

Our children's community nursing service aims to provide high quality nursing care for children, outside of the hospital environment and in the community. The team work to support the prevention of unnecessary readmissions, provide early safe discharge and enable transition of acute nursing care from hospital to a community setting.

Some examples of what our community nurses do include: intravenous antibiotics; wound care; monitoring and reviewing of a medical condition; constipation and bowel management; and training to enable parents and carers to safely provide ongoing care at home.

Highlights from the past year include:

- Our team led on producing a national guidance document for Community Children's Nursing on behalf of the Royal College of Nursing (UK), with Sirona, our community nurse partners
- Our team also focused on joint working with our children's emergency department to develop joint pathways
- The OPAT service's outcomes have been excellent, with an infection cure rate of 99.2%!
- The number of patients referred to the OPAT service and

the number of saved bed-days is going up every year

- Patient numbers grew by 36.7% (175 patients) in 2018/19 compared to the previous year
- There was an increase in bed-days saved by 67.8% (1732 days)

Infectious diseases

- The paediatric infectious disease & immunology service provides safe, high quality and family-centred specialist care for children with primary and secondary immunodeficiency (HIV) and complex infections
- The team work to improve the quality of antibiotic prescribing in Bristol and the South West region, facilitating rapid and safe discharge for patients requiring intravenous antibiotics via the paediatric outpatient parenteral antimicrobial therapy (OPAT) service and community nursing team

Service achievements in 2018-2019 include:

- The antimicrobial stewardship programme was set up to improve antimicrobial prescribing and to reduce emerging resistance in line with national and international recommendations. As a result of the work undertaken, the proportion of hospitalised children on antibiotics reduced from 50% to 23%!
- As part of the research network, the team are currently managing over 20 clinical research trials relating to childhood infection & immunity
- This year they started the active surveillance of hospitalised children with chickenpox. The study is now being rolled out to other centres across the country. The results of this study are expected to inform a decision to be taken in 2020 on introduction of varicella vaccine for all children!



Feedback for our community nursing team

"Ken I just wanted to say a huge thank you to you and your team particularly Corrina and yourself. You were all sooo wonderful with our son and our family. Taking the time to reassure us and being so kind and caring. We feel so grateful to have had your team treating him. From the first contact with Kelly on the ward to our last visit with Corrina, you were all so professional. Thank you all so much."





Gastroenterology and respiratory



Gastroenterology

- The paediatric gastroenterology service at BRHC provides care for children with gastroenterology, nutrition and liver problems throughout the South West
- This includes approximately 350 children with inflammatory bowel disease, 25 children with intestinal failure receiving home parenteral nutrition and 100 children with liver disease
- Members of the team have national roles within the British Society of Paediatric Gastroenterology, Hepatology & Nutrition (BSPGHAN) and are engaged in NHS England activities to shape future PGHAN services
- This year the team has hosted a national meeting on paediatric intestinal failure which received excellent feedback

- Research done by the department has helped reshape European guidelines for the diagnosis of coeliac disease
- We are continuing to develop our expertise in paediatric endoscopy: close links with surgical colleagues in the BRHC have resulted in endoscopic procedures increasingly being performed instead of major surgery including for emergency cases, which is fantastic news for children and families
- This year our gastro team have been innovative in implementing a dietetic led coeliac service to their patients

Respiratory

Our respiratory service highlights for the past year include:

- The team were very happy to receive £80,000 of support to support new equipment from our charitable partner, The Grand Appeal
- This has enabled us to renew and expand our sleep service, and to perform multiple breath washout measurements, a new lung function test, in young children with cystic fibrosis
- The service also received divisional funding to increase their staff for respiratory physiology and sleep
- The service was selected as a centre for hugely important multi-centre clinical trial of novel (triple therapy) in children and adults with cystic fibrosis

Nephrology

The nephrology team provide specialist renal services for children and young people in the South West and South Wales. Our aim is to care for our patients at home wherever possible.

We are one of ten centres in the UK undertaking renal transplantation for children and young people. We are one of the largest kidney research groups in the world, with more than 40 full time researchers undertaking world–leading research. In 2018-19 members of our team:

 Have led on and published national (NICE accredited) guidance on autosomal dominant polycystic kidney disease and on renal replacement therapy and

- conservative management as well as developing standardisation of immunosuppression in UK paediatric renal transplantation
- Have been leading on a prestigious medical research council stratified medicine research programme in kidney disease (£3.2m funding)
- Have had £11.8m of grants awarded
- Have been recruiting patients to the Ecustec trial, which is aiming to find a treatment for haemolytic uraemic syndrome caused by e-coli







Metabolic, general paediatrics and dermatology

Metabolic

- The South West regional metabolic department based at Bristol Royal Hospital for Children is one of five paediatric specialist metabolic centres in England
- We provide comprehensive high quality multidisciplinary care to children and their families affected by metabolic disease across the South West
- We are a multi-disciplinary team consisting of consultants, specialist dietitians, nurses, pharmacists, biochemists and a psychologist
- We provide outreach clinics in Truro, Plymouth, Exeter, Taunton and Bath and we cover newborn screening across the South West of England
- The metabolic team also lead a nationally commissioned, highly specialised service providing national and in some circumstances international care for children with barth syndrome. This service was formally established in April 2010, when funding was obtained from NHS England and was the first of its kind in the world!

General paediatrics

The general paediatric department predominantly cares for acutely unwell children from Bristol and the surrounding areas. The team's highlights for 2018/19 include:

- Introducing a new 'advice and guidance' service for GPs
- Starting the 'First ABC' study, looking at different types of breathing machines for patients and gaining agreement to be a site for forthcoming national Kawasaki study

- Working closely with our partners in CAMHS (Child and Adolescent Mental Health Services) to develop a joint outpatient eating disorders clinic
- Making a significant contribution to a paediatric epilepsy project, which aims to meet national standards for children with epilepsy
- Setting up management meetings to track and provide clinical input and leadership for paediatric inpatients with complex needs
- Undertaking formal joint working with spinal surgeons and the multi-disciplinary team to improve perioperative care of complex children undergoing scoliosis/spinal surgery

Dermatology

- The paediatric dermatology service at the BRHC is a small team consisting of two part-time consultants, and two clinical nurse specialists (CNS)
- We run the regional laser service for children with vascular anomalies and burns
- The service offers clinics outside of our local area and have established an outreach service in Taunton, which was received well there
- The team run combined clinics with rheumatology and plastics, to ensure patients get the best experience and a 'one stop shop' approach
- We are all very proud of the dermatology CNS team who have become prescribers this year!

Paediatric palliative care and bereavement support team

The Paediatric palliative care & bereavement team cares for each child and their family holistically, from the point of diagnosis through to end of life care. The team seeks to make a positive difference through life, death and bereavement, supporting families in their time of need and helping them with the devastating loss of their child.

In 2018-19, their achievements include:

- Supporting the palliative care of 72 children and their families and the care of 48 families in bereavement
- Delivering almost 100 hours of training, including the second 'Together We Matter' multidisciplinary study day, attended by 35 professionals

- Further developing links with the Children's Hospice South West through appointment to a joint nursing post working across the organisations
- Hosting an engagement event to hear from 35 family members and professionals to understand how the team might best continue to develop the service in order to meet their needs
- Running the first 'Family Café' peer support event for bereaved families, in partnership with The Grand Appeal and Winston's Wish, a bereavement charity
- Holding a special afternoon of remembrance at Bristol Memorial Woodlands for bereaved families







Spinal surgery, anaesthesia and pain management

Spinal surgery

- There is a large and diverse team that makes up the spinal department at the BRHC
- The team includes five spinal surgeons, neurophysiologists, anaesthetists and scrub practitioners, who assist the surgeons, providing the most appropriate equipment for the operation in theatre, and ensuring procedures all run smoothly
- In 2018/19, the team cared for over 1000 outpatients and performed around 70 operations
- Some of these surgeries were incredibly complex and they took between six to eight hours each!
- Foa patient undergoing spinal surgery, which can be very high-risk and incredibly intricate, there are often around ten people in the operating theatre, all focussed on the patient

Anaesthesia

There are 23 paediatric anaesthetic consultants covering the children's hospital, dental hospital, eye hospital and the WATCh regional transport team. The team's highlights from 2018/19 include:

 Developing a comprehensive preoperative assessment service to improve safety, quality and efficiency of planned surgery Working with cardiac services to develop an enhanced recovery programme – the first of its kind for children!
 This is an evidence-based, coordinated, multi-disciplinary approach to surgical care with the aim of improving recovery and outcomes for patients

Pain management

- The acute pain team have started a trial of wound catheters following major surgery. This is a modern approach to acute pain management which has many potential advantages over traditional techniques such as epidurals
- A number of research projects are currently in progress: one of the consultant team has done a PhD based upon the neuro-protective effects of xenon and has an interest in its possible role in reduction of anaesthetic induced neuronal injury in small infants





Ear, nose and throat, cleft service and burns

Cleft service

The South West cleft service has on average 67 new babies born requiring long term care every year. The service provides surgery at the BRHC and outpatient clinics across the South West. Achievements include:

- Introduced early years speech development pathway with parents support aids and videos tutorial
- We are continuing to recruit families to the 'Cleft Collective Project', the largest cohort study and gene bank of cleft related families in the world!

Burns

- The BRHC is one of the three paediatric burns services in the UK, taking the patients with the most serious burns from around the country, and making us one of the two busiest services within the UK with over 1000 new referrals in 2018/19
- The aim of the South West UK Children's Burn Centre at Bristol Royal Hospital for Children is to provide the highest quality care for all children referred with burns, scalds and other skin loss conditions
- We are a national centre for paediatric burns research and our research team have won many competitive grants this year
- The BRHC has an established burns outreach team

delivering aftercare in the patient's own home across a large geographic area

- A programme of burns education is delivered to our referring services all over the South West, which includes pre-hospital staff teaching as well as prevention education to new parents as part of public health initiatives
- For more information please visit the University Hospital's Bristol website and search for 'the South West UK children's burns centre'



Feedback for the ear, nose & throat and audiology teams

"All staff, nurses, cleaners, play team were fantastic. Quick to resolve any issues and very caring and thoughtful to me as a parent as well as my baby. ENT, Cardio and Respiratory teams were brilliant and very thorough, very reassuring and listened to my concerns. Dr Gaskin (ENT) was amazing, highly recommended, without him listening I feel my little one may not be here with us today."





Surgery, urology and trauma and orthopaedics

- The paediatric surgery/urology department provides an emergency and elective service to children in the South West and further afield
- Several members of the team are leading lights in the UK intercollegiate examination process and a member of the team has taken on the task of revamping the European Paediatric Surgical Exam with a first successful exam
- sitting taking place earlier this year
- The team recently published a series of jejunal interpositions for long gap oesophageal atresia; following this we have received a number of out of region referrals for these complex cases, reflecting the good outcome for this previously under-rated technique

Case study: Braham's surgical story

- Braham, an 11 year old boy, was left in a critical condition, after falling 200 feet into a ravine in North Devon on a family holiday from the United States of America
- He was rescued from rocks as tides were rising
- He was a very long way from home and because of his severe injuries he was helicoptered to BRHC, where he needed multi-disciplinary treatment throughout his stay
- Braham needed resuscitation and emergency surgery was required to reconstruct his hip using a pin and plate.
 He also had an open ankle fracture, which needed an external cage and microsurgery

- This is extremely rare treatment and our frame clinics are an example of extremely specialised care
- Braham also had a liver laceration, a spinal fracture and a chest injury: all requiring urgent care, alongside extensive nursing, physiotherapy and occupational therapy input
- Braham's family could not have been more complimentary about NHS in general and the care they received at BRHC care in particular. They told us that it is credit to our amazing staff that Braham is still with us today!
- Since Braham returned home, we have been delighted to hear that he has made a full recovery and returned to all of his usual activities



Paediatric neurosciences

- The neurosurgery service at the BRHC is internationally renowned as one of the foremost pioneering centres for children's brain surgery in the UK
- We are one of only nine children's hospitals around the UK performing very complex operations on babies from as young as five weeks through to teenagers and are one of only four English centres who have a children's epilepsy surgery service
- Our highly specialist neurosurgeons treat patients with epilepsy, brain tumours, brain injuries, cerebral palsy and movement disorders
- This year the selective dorsal rhizotomy (SDR) service continued to change children's lives. SDR is a surgery which permanently reduces spasticity in the legs of children with Cerebral Palsy. We are currently one of the six centres in England that provide this amazing surgery and rehabilitation, enabling children to walk again
- We are a neuromuscular centre of excellence and the only UK centre to have all paediatric complex movement disorders management on site, including SDR, Botox, gait analysis, deep brain stimulation (DBS) and intrathecal baclofen (ITB)
- We provide specialist neurorehabilitation to patients across the South West region and are major contributors to three operational delivery networks (ODNs) including neuromuscular, major trauma and neurosciences





Paediatric cardiac services and the congenital heart disease network

The **paediatric cardiac service** at the BRHC is a highly specialised service for the treatment and care of children with congenital heart conditions and those who require complex heart surgery. The service looks after patients in Bristol, the South West and also South Wales. Highlights for 2018/19 include:

- New clinics were set up in Weston General Hospital and in South Bristol Community Hospital
- A new Clinical Nurse Specialist anticoagulation service was launched
- The service received the highest ever data quality indicator of 99% for reported national institute for cardiovascular outcomes research (NICOR) data
- The team have been working hard to reduce waiting times for cardiac surgery



Established in 2016, the congenital heart disease network brings together

clinician, managers, patient/family representatives and commissioners from across the 32 centres in the region, working together to support patients of all ages with a congenital heart condition, and their families/carers.



It's been a busy year for the network with progress made on all of its key priorities, highlights include:

- Development of several paediatric and adults congenital heart disease (CHD) protocols, helping to standardise and improve care across the region
- Establishing new transition clinics in the BRHC, which help support young people to transition into adult CHD services
- Delivering over 18 network events including a range of training and education events for professionals across the region
- Increasing the numbers and developed the key roles of the CHD link nurse and patient/family representatives in the network
- To find out more please visit www.swswchd.co.uk or follow us @CHDNetworkSWSW



Our paediatric critical care services

Paediatric intensive care unit (PICU)

Every day, children from anywhere in the South West of England or South Wales will find themselves in need of the life-saving care of the intensive care team at BRHC. The Paediatric Intensive Care Unit (PICU) at BRHC is one of the largest in the UK, caring for over 800 children and babies every year.

The team offers lifesaving, round-the-clock care for patients with a huge range of conditions including: breathing problems, meningitis, injuries from serious accidents and those requiring open heart surgery. A few facts about our PICU patients:

- This year, the team delivered ECMO (Extra Corporeal Membrane Oxygenation) care to four patients receiving a total of 19 days of treatment
- 48% of patients in 2018 were less than 12 months old and the majority were male
- 39% of admissions were following cardiac surgery: this group of patients consistently occupy a third of the unit's total bed-days

Wales and west acute transport for children (WATCh)

- 1100 calls a year
- 350 critical care transports
- 18% of England covered
- Largest area covered by any of 9 services in UK

Our WATCh service works very closely with our critical care services, transporting the sickest children from local hospitals around South West and South Wales to receive specialist treatment at the BRHC.

High dependency care

We have three high dependency units (HDU) at the BHRC, for medical, cardiac, and neurosurgery and burns patients. The high dependency service's aims are :

- To provide high quality level two critical care as close to home as possible for patients
- To achieve the standards set out in national guidance for seriously ill children whose severity of illness does not require acute invasive ventilation or intensive care, but whose needs remain higher than a standard ward

The high dependency services work closely with a range of allied health professionals. We have a regular education programme, quarterly governance meetings and our weekly multi-disciplinary ward rounds. This approach allows a cohesive, comprehensive and reflective approach to the often complex needs of this patients group.

The service seeks feedback regularly and recent parental feedback showed that over 75% of patients and parents surveyed rated their care with the HDU service as excellent!





Our neonatal intensive care unit and newborn emergency stabilisation and transport team (NEST)

- The neonatal intensive care unit (NICU) is based at St Michael's Hospital and aims to deliver high quality and family-focussed neonatal care with a multi-disciplinary team approach
- We work with the whole South West region offering the highest level of care to critically ill and premature babies from Bristol, the South West region and South Wales
- Our unit cares for over 800 babies each year, from those born as early as 23 weeks, to babies requiring life-saving treatment and care when they are born at full-term
- The team achieved overwhelmingly positive general medical council (GMC) feedback from our medical trainees, something they are extremely proud of
- St Michael's Hospital is also home to the NEST Team, which responds to emergency calls regarding critically ill and premature babies born throughout the northern sector of the south west neonatal network: hospitals in Taunton, Yeovil, Bath, Swindon, Gloucester and Bristol
- When a baby is in need of specialist intervention/ support/treatment, NEST can provide advice to the local team, assisting in stabilising babies and then transferring them to wherever they need to go

611 Transports

In 2018/19, the team purchased a new transport specific ventilator

1 in 2

Transports are babies receiving specialist/critical care

1 in 2

Transports are babies going back to their local hospitals

Feedback from families...

"I felt like my son was being treated like the very precious angel that he is"

"Kept things calm...they were fantastic"

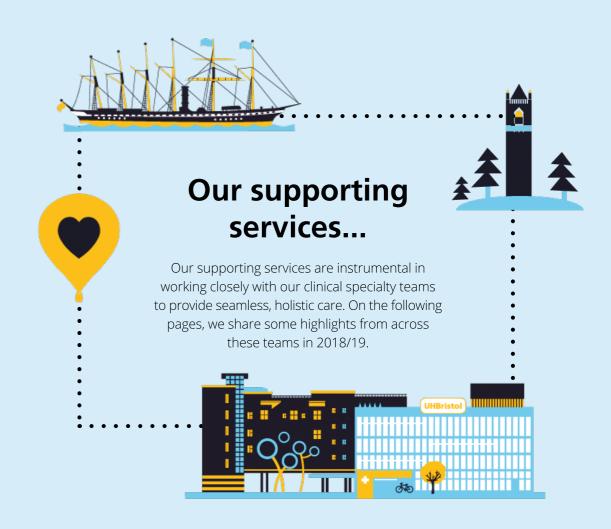
"Very good service, should be very proud of themselves"

Feedback from other hospitals...

"Complex case, good respect of the local assessment, excellent transfer..."

"Worked in partnership with referring unit, prompt as usual"

"Good clear handover, answered queries helpfully, friendly"







Mental health and therapies

Mental health

- This year, our mental health service has set-up a new team consisting of six new members of staff (nursing assistants) who are trained to support patients with complex mental health needs
- They work on our wards and have been trained to provide 1:1 care, aiming to improve the experience of patients, families and staff
- This initiative was led by the staff on our adolescent ward (Apollo 35) and the paediatric liaison service
- This is an innovative new approach to meeting the needs of this patient group, as prior to this we were using expensive agency staff on an adhoc basis
- This initiative highlights our commitment as a hospital to providing the best care for our patients, meeting the needs of their mental, as well as physical health

Therapies

- In 2018/19, our therapies service introduced neurosciences physiotherapy lead roles. These roles oversee neuro-rehabilitation, selective dorzal rhizotomy and complex movement services, including intrathecal baclofen and deep brain stimulation. They are instrumental in assessing children, recommending treatment options with consultants and the wider team, and guiding the therapy team in the rehabilitation of these patients
- Our occupational therapy (OT) team has been leading on the therapy input to a very specialist group of children with rare bone disease, and have been representing the service on the international stage. This is an amazing achievement for the small OT team!



Radiology, dietetics and pharmacy

Radiology

- The radiology team at BRHC is made up of six general paediatric and three neuro radiologists, working together with 17 radiographers, radiology assistants and administrative staff
- They use different methods to acquire images of the body, including: magnetic resonance imaging (MRI), computerised tomography (CT), fluoroscopy, nuclear medicine scan and plain films, and undertake work for General Practitioners (GPs) as well as for inpatients and outpatients at the BRHC
- The service also provides interventional procedures, such as: collection drainages, nasojejunal tube placement under fluoroscopy, air intussusception reduction, radiofrequency ablations and biopsy under ultrasound or CT
- The team use lots of high-tech equipment including 3T and 1.5T MRI scanners, a CT scanner, ultrasound machines, digital radiography x-ray and a fluoroscopy machine
- The team invest in teaching of their registrars and fellows, leading and participating in paediatric radiology conferences and teaching days

Dietetics

- Our paediatric dietetics and nutrition service has the largest ketogenic service in the UK, with 100 patients actively on the diet for treatment of intractable epilepsy
- An international ketogenic conference was run by our team in Bristol in May 2018, showcasing our skills to a wider audience

 Our team currently provide a region wide service where we aim to see patients as close to home as possible

Pharmacy

- The children's pharmacy team organised, chaired and ran sessions at the 2018 neonatal and paediatric pharmacist conference, which had 130 delegates and 40 exhibitors from around the UK, Ireland and Scandinavia
- The pharmacy team in cardiac and neonatal services have been contributing to the work of the regional operational delivery networks in these areas
- The team have delivered a range of lectures, workshops and webinars to train the next generation of paediatric pharmacists on the national 'Starting Out in Medication Optimisation' in children study day
- The chief paediatric pharmacist led the writing and review of national standards on pharmacist provision to neonatal intensive care units







Our child and family support services

Liaise service

Liaise is a small team that works to support patients and families with any non-clinical needs they may have. The team strive to provide the best support possible to patients and families, and their highlights for 2018/19 include:

- Launching #conversations event at St Michael's Hospital as well as holding another successful event at the BRHC.
 #conversations is our main divisional engagement event of the year and is always fun-filled!
- Co-creating two further ward orientation videos for Lighthouse and Starlight wards with patients, ward staff and our charity partner The Grand Appeal, to help prepare patients and families for their stay
- Expanded our partnership with The Grand Appeal to grow our family support team to provide more dedicated support to specialist areas, including NICU, PICU and cardiac care
- Increased involvement of patients and families in recruitment of front line staff

Youth services

- 226 adolescents were engaged by our young persons involvement worker
- We launched a hospital based youth group in conjunction with play specialist staff. This group helps

to counteract boredom and increase social opportunities for teenage patients, and to enable patients on other wards to meet peers and take part in activities

Psychology

- Our clinical psychology team have helped produce the first prize winning paediatric and adolescent gynaecology text book
- Our paediatric neuropsychologist team were invited to give evidence as part of the all party parliamentary inquiry into access to psychological support for children and adults living with muscle wasting condition

Play team

Our play team's core function is to provide normalising play, distraction play and preparation play for all inpatients in need of support in the BRHC. Highlights from the past year include:

- The employment of two Grand Appeal funded health play specialists for Starlight ward
- Introduction of a statistics form to show the benefits of play input in reducing stress for patients and avoiding the need and cost of medication
- Our team change how play staff work to ensure cover for all wards and play areas as well as enabling

extended opening hours for the main activity centre

 Working in partnership with the arts co-ordinator to ensure a diverse range of entertainers and artists around the hospital, which we hope our patients, families and staff enjoyed!

School

 The hospital school provides a friendly, fun as well as educational experience for our patients. The team consists of 13 teachers and 3 teaching assistants specialising in primary and secondary education across all the main disciplines

- In 2018/19, The Flamingo Chicks, a charity which promotes dance for all ran monthly sessions in the schoolroom for those who wanted to take part
- Alongside this we were thrilled to have increased use of volunteers in our school







Our administrative teams

Outpatient and admission booking teams

- Our outpatient booking team consists of 11 outpatient appointments coordinators and eight receptionists.
 Most days we have between 275 and 350 patients coming through our outpatient reception areas within our hospital alone, with patients travelling from as far as Cornwall for our specialist services
- The team coordinate and book outpatient appointments for over 25 different paediatric specialities and run five different outpatient reception areas for paediatric clinics
- The admissions team has five admission bookings coordinators. This small team book all the elective bed admissions for children having operations or investigations that take place in the BRHC. This can mean processing bookings for up to 40 patients a day!
- The team were nominated for a divisional staff award due to their hard work and multi-disciplinary approach to working
- The admissions team have worked closely with Meadow, our day case ward, to deliver an initiative that aims to use day case beds overnight during times of peak admissions, in order to support our elective surgical programme during winter (our busiest time of year) and reduce cancellations

Secretarial staff

- The medical secretarial team aims to provide an efficient and effective secretarial service to clinical teams, and act as a point of contact to provide support for staff, patients and families
- The BRHC has 57 medical secretaries, which equates to 44 whole time equivalent staff
- During 2018/19, the target turnaround time for clinic correspondence to be sent out from the hospital reduced from ten to seven calendar days and so the medical secretaries have worked closely with their clinical teams to strive to achieve this
- This year, they have been working hard to ensure they understand new regulations and requirements around data handling, due to European Union General Data Protection Regulation (GDPR)
- In June 2018, a new electronic referral system was introduced in the Trust. This meant GPs could no longer use paper referrals for first outpatient appointment requests into the Trust and the team were essential in ensuring this transition went smoothly
- In summer 2018, lots of the team enjoyed walking the Gromit Unleashed Trail around Bristol, in support of our charitable partner, The Grand Appeal

Our research

The children's hospital research team have delivered another early phase trial of a novel drug therapy to treat boys with duchenne muscular dystrophy (DMD) in conjunction with the neuromuscular team. These studies are part of a national drive to increase access to novel treatments for patients with DMD and to allow patients to participate in clinical trials closer to home/within their local region.



We were delighted to have recruited the second global patient for PARC, a phase I/II study evaluating the safety and activity of pegylated recombinant human arginase (BCT-100) in relapsed/refractory cancers of children and young adults.



One of the most important global paediatric emergency medicine publications in 2018/19 was a study looking at the best treatments for treating children having a prolonged seizure. Bristol was one of the top recruiters in the UK and the lead author was one of our children's emergency department consultants!



In collaboration with the paediatric rheumatology team the women's and children's research unit have recruited the first European patients to a commercial trial looking at the treatment of children with polyarticular arthritis with an oral biologic agent, baricitinib. This important study allows for oral treatment of arthritis as opposed to more invasive painful subcutaneous injections and is therefore of great interest to children, young people and their families with this condition.



Our occupational therapy lead was co-author of 'consensus statement on physical rehabilitation in children and adolescents with osteogenesis imperfecta', which was published in the Orphanet Journal of Rare Diseases.

300 young adults recruited

into a national study evaluating the effect of immunisation with group B meningococcal vaccines on meningococcal carriage.





Our education

We pride ourselves on delivering high quality, innovative education and enabling our broad range of healthcare professionals to continuously learn and develop new skills.

Some education highlights from our teams

- This year our renal team have been focusing on their education programme and delivered a two day event open to healthcare professionals from the South West that covered all aspects of both dialysis and kidney transplantation
- Our PICU team works closely with the University of Bristol and the University of the West of England to help them to continue to learn world-class techniques and ensure the best training for the next generation of doctors, nurses and healthcare professionals
- There is a strong programme of ongoing education across our three high dependency areas, with monthly ward based multi-professional simulation training sessions for all team members
- Our children's surgery team have been piloting simulation models for paediatric surgical training, working to design and develop operation specific models

Faculty of nurse education

Our faculty of nurse education is a dedicated department to support nurses with their professional development and

learning, that was established six years ago and offers a range of opportunities to our nursing workforce.

This year, the faculty has introduced an advanced neurosciences module. This course was piloted during the summer with very good feedback from students. The course fostered collaboration between Oxford, Southampton and Bristol with nurses from all three centres in attendance. The nurses spent study time in each of the three centres being taught by experts in slightly different fields of paediatric neurosurgical care.



Paediatric simulation programme

Simulation education aims to promote better care by enabling clinicians to train in a simulated clinical environment. This year, the simulation team have focused on:

- Increasing the delivery of point of care simulation around the BRHC
- Piloted three new courses for multi-disciplinary working

 Securing a research project to look at the use of simulation in teaching skills to parents

Point of care simulation

In total 115 sessions were delivered in 15 areas. A total of 730 staff were trained, which represents a 20% increase on the number of sessions delivered in 2017/18 and a 15%

increase in the number of staff trained overall!

Major systems tests

We successfully ran a return to theatre simulation in a multidisciplinary, cross-speciality simulation in November 2018

Our awards, achievements and innovations



Recruitment, retention and wellbeing

The recruitment, retention and wellbeing group were a finalist in the category of best employer for staff recognition at the Nursing Times workforce awards

Disability team

This team set up a pre-admission screening system for children with disabilities in order to identify and proactively meet their needs when coming in to hospital for an elective admission, aiming to dramatically improve the experience of these children with more specialised needs and their families

Going the extra mile

A little girl with autism was extremely anxious about having surgery. We found out that she loved the film The Greatest Showman'. This was enough to make all the difference when she came in... The theatres recovery team made sure they had the right music on, they sang to her, danced for her and she went out smiling!

Oncology and Haematology

The team led the development of an oncology and haematology telephone triage toolkit: a guideline for the provision of triage assessment and advice for staff answering telephone calls from families who were at home with their children, whilst undergoing cancer treatment





Our community and global health work

In addition to their dedication to their NHS work in the UK, BRHC staff are involved in work supporting child health initiatives in our local communities and beyond.

Our staff are dedicated to providing outreach care and education in the local community. For example, one of our neurosurgeons, speaks to pupils in local schools with his 'skype a surgeon' initiative!

Similarly; many of our staff are engaged in a wide variety of activities abroad supporting children and their families with a range of projects focused on:

- Delivering clinical care
- Teaching and training
- Building capacity
- Nurturing partnerships

Staff have been involved in project work in as many as 24 different countries; as well as giving their time and expertise abroad, they also bring back knowledge, experience and skills which benefit our staff and patients here in Bristol and beyond.

24 countries involved in project work

Kenya, Ghana, Sierra Leone, Niger, Malawi, Ethiopia, Gambia, Sudan, Palestine, Iraq, Syria, Trinidad and Tobago, Cambodia, Myanmar, Nepal, India, Romania, South Africa, Rwanda, Jamaica, Israel, Afghanistan, Uganda, Tanzania



As a hospital we are looking at developing a formal global child health strategy for the future, to express our role as a truly global hospital for children. We want to make our international links even stronger and ensure the care we provide continues to be world class!

Quality and patient safety

- At the BRHC, we pledge to continuously seek improvement in patient safety. We believe that patient experience and staff wellbeing are important ingredients in achieving this vision and this year the quality and patient safety team have been promoting the important connection between patient safety, staff wellbeing, a positive safety culture and positive reporting
- Patient safety at the BRHC is led by a highly skilled multi disciplinary team including clinicians and managers who meet weekly to evaluate care throughout the hospital and to consider the immediate and long term response to new and emerging concerns
- There are several key work streams such as medication safety, improvement in the management of the deteriorating patient, the early management of sepsis, and paediatric theatre safety. Multi-professional teams are tasked with developing these specifically designed improvement projects with the overall goal of strengthening patient safety and optimising care
- The quality and patient safety team continue to share weekly messages in the form of eye catching drawings.
 Our safety 'messages of the week' are designed to support learning from patient safety incidents in an innovative, memorable manner. They are well received and are discussed at ward safety briefs and operational meetings
- Wherever possible, the quality and patient safety team at BRHC aligns its objectives with the national patient safety strategy, so the overall aim for the coming year

will be to continuously strive towards 'a safer culture, safer systems and safer patients'







Our charities: 2018/19 highlights

We are extremely proud of and grateful for our charity partners. We couldn't provide the outstanding care we do without their support.



The Grand Appeal and the hospital work together to pave a new path forward for sick children, babies and their families through a vast network of projects, developments and facilities

- This year, The Grand Appeal has funded over 60 separate projects, valued at over £1.4 million, including: a new, eight-bed family accommodation; a revolutionary head coil for intraoperative MRI; the refurbishment of the rainbow room, a private bereavement space for families to create lasting memories with their child; a high-tech ultrasound machine for the neonatal intensive care unit; and many arts enhancements and programmes across the entire hospital
- The Grand Appeal's 14 specialist staff worked directly with over 2,500 patients and families this year, across sensory play, family support, youth involvement and music therapy
- Through its two family accommodation sites, Cots for Tots House and Paul's House, The Grand Appeal has given 500 families of critically ill children and babies a home-awayfrom-home
- The Grand Appeal funded 3D bio-printing service began in 2018, and has printed exact copies of over 30 patients' hearts

 People from across the world flocked to Bristol for the charity's third sculpture trail, Gromit Unleashed 2, which raised an amazing £2 million!



Above & Beyond is the local charity raising funds for University Hospitals Bristol Foundation Trust: this year their supporters funded a range of amazing projects for the BRHC

- This year Above & Beyond has funded over 118 projects, with a total value of £637,000, including three mobile hoists, visitor chairs in Caterpillar ward, and the oasis garden, an outdoor space for patients and families to enjoy away from the hospital environment
- At the end of 2018, Sunflower ward reopened after a completed refurbishment to help improve the environment for patients and their families. This project was funded primarily from participants in 2017 Bristol to Cycle Challenge, who together raised £119,000, as well as a donation from Westerleigh Parish Council. Funds from the challenge were also used to create the oasis garden
- Above & Beyond funding provided a LEGO model to help prepare children who need to have radiotherapy; a rainbow

light tube, where patients can control the light colours and patterns to act as a distraction; Buzzy Bees, which are used to help distract children who are having injections and worry monsters, soft toys that children can 'feed' their worries to

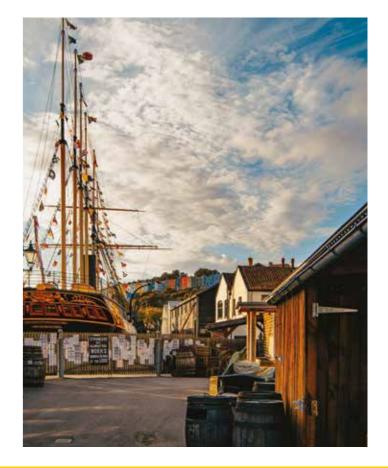
 In the oncology department, two chemotherapy medication pumps were funded for leukaemia patients to make it possible for them to receive care at home, without having to stay in hospital for a long period of time

A massive thank you to our other supporting charities including: the Guild of Friends, Ronald McDonald Bristol, Barnardo's, Children's Hospice South West, Winston's Wish, Jessie May, Together for Short Lives, Tommy's, SANDs, Bluebell, Off the Record, Muscular Dystrophy UK, Youth@Heart, the Child Brain Injury Trust, Macmillan, CLIC Sargent and others...

Our challenges

In a changing and often complex context, the Bristol Royal Hospital for Children continually strives to be the best provider of paediatric care for its patients and their families. However, we are facing a number of complex issues, that we are working hard to address. Our biggest challenges include:

- Ensuring our services are financially sustainable for the future
- Meeting growing demand for our services
- Responding to skills and supply gaps in our clinical workforce





Looking to the future: children's services strategic aims

Every day we work hard to deliver the best care we can for our patients, but an important part of our work is about looking to tomorrow, to ensure the long-term success of our services and to make them the best they can be in the future, for your children. Our key children's services strategic aims are to:



Be an employer of choice, invest in the wellbeing of our staff and diversity of our workforce



Build our reputation and brand nationally and internationally as a centre delivering world class care for children



Lead outstanding specialised paediatric care in our region through existing networks and the development of an overarching children's operational delivery network



Encourage active participation of patient and family representatives at all levels, and create opportunities for co-design and co-delivery of services



Develop our profile as a provider of specialist, world class paediatric services and explore new areas of growth



Further embed research within the culture of our division: every team, at every level is involved and every child/family is invited to contribute



Reduce pressure on the children's emergency department through innovation and collaborative working across our local region



Continue to work in partnership with Weston Area Health NHS Trust to the benefit of children and families



Enable greater and more creative working with primary and community services to improve care for children and families



Continually strengthen our approach to patient safety



Continue to improve palliative, end of life and bereavement experiences for children and families



Provide holistic care for children and families (psychological and physical health) in partnership with other providers



Modernise our facilities and increase our physical capacity for children's services







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