Holy Cross Hospital

Clinical Outcomes Report 2018

Challenging the limits of severe disability

Contents - Annual clinical outcomes report 2018

Foreword

I write this introduction to the Clinical Outcomes Report having joined Holy Cross Hospital in February 2018, following the retirement of Christopher Hinton - CEO for nearly 40 years. I was grateful to be handed responsibility for a very high-functioning hospital which had been rated Outstanding by the Care Quality Commission during Chris Hinton's final year – a fitting testament to his leadership and development of the organisation.

Here at Holy Cross, a specialist set of skills, a wide range of experience and a high set of standards are drawn together under one roof, and these, together with the determination to learn, to persevere and to go the extra mile, makes progress possible for our patients.

In this report readers will find both narrative, and statistical outcome information about our entire range of clinical services, but I would like to begin this introduction by telling you about just one inpatient whose life, like so many people here, changed in an instant. Jane (name altered) came to Holy Cross in 2014 following a major stroke. Wheelchair-bound, and with only slight movement in a thumb, this was about as far away from her training as a dancer as one could get.

Jane had commenced with a range of therapies in her previous hospital, and these were continued and developed upon her arrival at Holy Cross. At the start of 2018 she started weekly sessions with the Neurological Music Therapist (a newly introduced service). The occupational therapist had previously introduced a buzzer for Jane to attempt meaningful yes/no responses, and this was taken further in the music therapy sessions by using the buzzer to respond to musical cues. It soon became apparent that she was able to respond consistently, although with some delay. Six months on, the use of the buzzer has taken a number of steps forward, with arithmetic and now spelling being demonstrated consistently and quickly. In her previous hospital, and on the basis of all the evidence, it had been suggested that she might be in a persistent vegetative state – unaware of the world around her - but with therapy, assistive technology, encouragement and perseverance, a world of two-way communication (which was always there in potential) is opening up again!

Our aim is to push against the limits of severe disability and to provide the best possible quality of life we can for the people we are privileged to care for, new technology as well as well-trained staff are key to achieving that aim. In addition to a full programme of in-house training, we were delighted to enrol a Senior Healthcare Assistant onto the Open University Pre-Registration Nursing Programme (PRNP), and to see another Senior Healthcare Assistant pass her conversion course to become a Registered Nurse. Our Director of Nursing/Nurse Prescriber, also completed an advanced respiratory management course in 2018, our General Manager became Chartered in the fields of Health and Safety and in Management, and our Director of Clinical Services completed the first stage of an MBA programme.

Volunteers also play a key role at Holy Cross Hospital in enabling patients to live their lives to the fullest extent, helping with outings, art, music, cooking and visits to our holiday cottage in Selsey. Their commitment week in and week out means that patients have a stimulating array of well-being activities beyond their therapy programmes.

In 2018 we were delighted to welcome 70 delegates to Haslemere for an International Conference on Advances in the recent Assessment, Diagnosis and Management of people with Disorders of Consciousness (DOC). Additionally, we hosted a four-day posture-management course, a Consensus Conference for DOC, an Advanced Spasticity and Physical Management study day, a training seminar on The JFK Coma Recovery Scale, an education day for the next of kin of people in our care, and a seminar on Osteoarthritis.

I would like to thank all those with whom we have collaborated; our donors and volunteers; our Clinical Commissioning Groups; other hospitals, educationalists and health care professionals; our staff; the Sisters of the Congregation of Daughters of the Cross of Liege, whose prayers, vision and encouragement have made all this possible; and finally the patients and relatives who work so hard and are central to everything we do.

Ross White
CEO, Holy Cross Hospital

Case studies

Case study - Mr Howard

Mr Howard was a retired school teacher who suffered a spinal stroke more than three years ago resulting in him becoming paralysed from the waist down. Mr Howard was unable to stand or walk and was very depressed by his loss of independence. He had a short period of rehabilitation in an acute hospital's rehabilitation ward early after the stroke, following which he decided to move to a care home in the town where he lived.

Mrs Howard, his wife of 40 years, died six months before his stroke. Mr Howard became increasingly depressed and demotivated. The nursing home did as much as they could to encourage him to sit out of bed but he consistently refused. After three years of living in the nursing home, he had never sat out of his bed and considered it pointless.

Mr Howard's family approached Holy Cross to enquire if a short period of rehabilitation would help improve his motivation to sit out of bed and eventually consider the possibility of training him to use an electric powered wheelchair.

The Multi-Disciplinary Team (MDT) at Holy Cross Hospital were keen to help Mr Howard and took up this challenge. The aims of Mr Howard's admission were:

1. To initially help Mr Howard overcome his anxiety of sitting out of bed.
2. To complete a comprehensive physical assessment to determine the type of seating system that would be suitable for Mr Howard.
3. To identify and provide a loan seating system from Holy Cross Hospital's stock that will meet Mr Howard's posture and indoor mobility needs.
4. To help and encourage Mr Howard to spend few hours a day in the loan seating system.
5. To provide an exercise programme that will help recondition him physically and help improve his sitting tolerance.
6. To build up Mr Howard's sitting tolerance so he could sit out for 5-6 hours per day in a wheelchair.
7. To train and supervise Mr Howard to safely and effectively manoeuvre the loan powered wheelchair indoors and promote some independent mobility.
8. To prescribe an appropriate powered wheelchair in liaison with a local private wheelchair provider.
9. To access the wider community by improving Mr Howard's outdoor mobility skills.

Mr Howard was very anxious prior to admission to Holy Cross. This was understandable as he had remained in bed for the last few years as the care home he was living in did not have access to specialist therapists that could help him achieve the goals listed above. A plan was worked out between Mr Howard, his family and the Multi-Disciplinary Team.

Conversations with Mr Howard revealed there had been several near misses in the previous nursing home with him nearly falling during attempts to transfer him into a chair or shower trolley/chair. These incidences made him very anxious and apprehensive with transfers and even bed mobility tasks.

Tackling the internal factors of Mr Howard's lack of motivation was going to be difficult. A change in social or external factors was something Holy Cross could help with and would play a very important role in his rehabilitation.

The MDT acted promptly from admission. The initial couple of days were about building his confidence in the staff's knowledge and skills in moving and handling of people, posture management and splinting. By day three, the therapy team had managed to identify and set-up a soft wheelchair that provided some postural support (Kirton Duo) for Mr Howard.

After a lot of reassurance by the therapy staff, he hesitantly agreed to sit up in the wheelchair.

On his first day of sitting, after having stayed in bed for the last three years, he managed one hour of sitting without complications. The therapist took this opportunity to take him around the hospital to show the various facilities and activities available and the people who would be involved in his care. Short as it may seem, that one hour of sitting up was the start of something better for Mr Howard. This became part of his daily routine where his sitting hours were gradually increased. This also changed his mood positively. He was more cooperative and more compliant with his nursing and care procedures. During this time, he also started attending physiotherapy and he drove himself from his room to the gym under supervision.

By week three, Mr Howard's sitting tolerance in the Kirton chair had increased to four hours. A powered wheelchair was set up by the therapy team for him to try out. It was set up with a control unit and joystick that he could control with his right hand. This was the next step on his way to independent mobility. From then, he was allowed to go out of his room under the supervision of the therapists and build up his skills in driving a powered wheelchair. This was a gradual but steady process. Initially he had to be taught the very basic skills such as moving forward in a straight line. Eventually, after regular teaching and supervision by the therapists, he was managing in complex environments e.g. getting in and out of the lift with minimal prompts.

After about two weeks of daily supervised driving, the therapy team contacted a powered wheelchair supplier. The powered wheelchair was prescribed and was delivered after a couple of weeks from Germany. Mr Howard continued to be trained and supervised in his own powered wheelchair while he waited for a placement in a suitable nursing home.

After three months in Holy Cross, Mr Howard achieved most of his goals and was discharged to a care home closer to the family's home. From a bedridden person to someone who was able to independently self-mobilise indoors, Mr Howard left Holy Cross with tears of joy.

Discussion

Motivation of the patient is the most important, yet the most difficult part of the work of the therapeutic professions... (O'Gorman, 1975)

In a critical review published in 2000 by Niall Maclean, five authors were found to hypothesise that improvements in patient motivation could be brought about by the therapist adopting specific qualities and modes of behaviour towards patients. These are:

- A constantly positive and encouraging attitude towards the patient (Hawker, 1975; DeSouza, 1983);
- A willingness to empower patients to become actively involved in the management of their rehabilitation programmes (Ibbotson, 1975; Anderson, 1988);
- And the ability to instil instrumental rationality (the ability to select appropriate means to achieve a given end) in the patient (Jerey, 1981).

Mr Howard's achievements at Holy Cross highlight the importance of patient participation and involvement in their own care. His lack of motivation was certainly a barrier in his rehabilitation but this case study shows that if we develop and maintain a culture and atmosphere that is supportive and caring regardless of the patient's personal predispositions, goals can be achieved.

Case study - Olivia

Twenty-two-year-old Olivia was involved in a motorbike accident whilst at university. She suffered many injuries including fracture to the arm and leg bones, vertebrae and severe abdominal injuries. She was admitted to a district hospital and was moved to a rehabilitation ward where she stayed for around a year. She was then admitted to Holy Cross Hospital in a disorder of consciousness without being able to communicate her needs.

The goals at admission were to:

- Establish the baseline of Olivia's awareness.
- Stabilise her respiratory management (reduce the number of chest infections and the need for oxygen).
- Work with Olivia to establish appropriate communication.

Olivia was assessed by the Multi-Disciplinary Team on admission and a plan was devised in the first two weeks. The first step was to get Olivia out of bed into a wheelchair so she would be able to sit up for a period of time. This would help her to access different parts of the hospital, both indoors and outdoors. Sitting up also helped with managing the respiratory function and with reducing pressure ulcers and preventing the development of deformities.

The therapists and nurses focussed on identifying the presence of any purposeful or meaningful behaviour. The most challenging task working with prolonged disorder of consciousness clients is to differentiate whether the responses produced due to environment or other stimulations are purposeful or spontaneous.

The Multi-Disciplinary Team at Holy Cross is experienced in conducting standardised assessments to establish the baseline of a patient's cognitive function and find potential function which can be used for meaningful communication.

Initial days:

During the initial period of admission, Olivia was assessed using the WHIM (Wessex Head Injury Matrix) and CRS (Coma Recovery Scale) assessment tools – both assessments showed an inconsistency in responses but the presence of purposeful movements. She was able to press an adapted switch upon verbal request on two different occasions, but she was not able to replicate this in later sessions.

Months of Rehabilitation:

Olivia was assessed in variable positions and environments to give her the best opportunity to respond. She presented with involuntary (spasm) movements which could be misinterpreted as a purposeful response. At this stage, Olivia was severely cognitively impaired and her needs and wants were anticipated and provided in her best interest.

Olivia started to respond consistently with structured MDT input. She responded to closed questions using an auditory feedback (AF) switch. She required assistance for the AF switch to be placed under her right thumb. She communicated by pressing the switch once for Yes and thrice for No. Olivia was assessed by local NHS services and she was provided with a tablet to control her immediate environment independently. She used the environmental control system by activating a small thumb switch, placed securely around her right thumb.

Reassessment after a period of rehabilitation demonstrated that Olivia was doing well in the communication protocol for both visual and auditory based situational orientation. The scores she gained under the communication function indicated that she had fully emerged from her disorder of consciousness state.

Plans and future:

The therapists are setting up a stimulation programme through which Olivia will be stimulated using a variety of auditory, visual and other stimuli. She will be referred to assistive technology services with a view to providing her with appropriate technology to establish an effective and reliable method of communication.

Achievements in 2018

Conference 2018

The third conference on 'Recent Advances in the Assessment, Diagnosis and Multi-Disciplinary Management of People with a Disorder of Consciousness' was a success with many 'firsts' including:

- We were awarded the Royal College of Physicians CIPD points for the conference.
- We successfully trialled a paperless conference which was welcomed by most delegates.
- An international speaker list included academics from the USA and Belgium and delegates from Spain, Ireland and Scotland.

Continuing with KPIs and CQUIN

The management team continues to submit data for the Commissioning for Quality and Innovation (CQUIN) with the Surrey Downs Clinical Commissioning Group. A set of key performance indicators is also in place and is reviewed by the hospital's Advisory Committee on a quarterly basis.

Challenges arising from changes in senior management and senior clinicians

The hospital has come through some big changes in senior staffing in 2018. The long term sickness of two senior clinicians and the retirement of our CEO after nearly 40 years' service was managed very well by the managers with the support of our new CEO. The clinical team continued to work hard in challenging circumstances to help the hospital maintain very high capacity and continue to provide the best possible care and treatment. We welcomed Sam Batstone, Consultant Clinical Neuropsychologist and Henry Amalraj Prabhu, Specialist Occupational Therapist to the team.

Successful completion of Holy Cross Hospital's Centenary celebrations

Holy Cross Hospital's centenary celebrations concluded successfully with an event where the Lord Lieutenant was the chief guest. This event concluded the year-long celebrations including a visit by HRH Princess Alexandra. All staff teams contributed to making the centenary events successful, with particular mention to the support services team.

The unveiling of stained glass artwork in St Hugh's Education Centre, Holy Cross Hospital.

Learning and development achievements

St Hugh's Educational Suite: The purpose-built education suite, funded by the Daughters of the Cross Charitable Company, was completed in 2017 and was put to good use in 2018. We organised various courses and conferences in the centre.

A 10-week language course was specifically conducted for training overseas qualified clinicians to sit the International English Language Testing System (IELTS) exam and improve their proficiency in English, a route to professional registration in the UK.

Jo Speed, our General Manager, has attained the status of Chartered Health and Safety Practitioner (CMIOSH) after completing an intensive programme through the Open University.

Debbie Freemantle, Human Resources Assistant completed a Diploma in Human Resources Practice Level 3 at Farnborough College.

Our Learning and Development Coordinator Joanna Phillips, who has been instrumental in coordinating and streamlining learning and development activities throughout the year, collaborated with two other specialist hospitals in South East England to share expertise.

Family education day

Educational sessions for families and relatives were held in May 2018 with good feedback from the participants.

The Outpatient Physiotherapy (OP) team's achievements

The hydrotherapy pool plant room underwent substantial maintenance work which caused closure of the pool for just under four weeks. During this time, the team devised replacement land-based exercise classes for patients. This saw some patients continue their progression from water to land-based exercise following the re-opening of the pool. It also gave the team a chance to update risk assessments and organise the very successful osteoarthritis seminar. This 2.5-hour seminar educated participants on how to live well with arthritis, and promoted the physio centre to some new people. This seminar was repeated in January due to popular demand.

July saw the introduction of new computer software (TM3) for our outpatient services, which combines a diary with electronic patient notes and also has a facility for accounting. The system is now in use for all patient notes and appointment booking.

One of our Senior Physiotherapists presented a lecture at the local Chamber of Commerce health and well-being evening on 'Exercise in the Workplace', which was well received.

On the environmental side, we introduced recycled paper cups to replace plastic ones to reduce plastic waste. TM3 also means we use less paper now that notes are computerised.

Research and service evaluation

We are getting closer to completing three major projects we were working on in 2018.

- The Cochrane review titled 'Assistive Technology, Including Orthotic Devices, for the Management of Contractures in Adult Stroke Patients' is nearing completion and will be published in 2019.
- The Physical Management of People with a Disorder of Consciousness Guideline Development Project is also nearing completion with a view to publication in 2019. This project was selected to be presented at the World Confederation of Physical Therapy Conference in Geneva in May 2019.
- The hospital and Brain Injury is BIG charity jointly funded the development of the DOC hub website www.dochub.org.uk. This website was set up to help act as a platform for professionals to share and learn from each other and to act as an information source for family and relatives of PDOC patients.

We are in discussions with other leading research institutes to initiate projects that will benefit current and future patients.

Staff who have acquired professional registration

In 2018 two of our overseas qualified staff secured registration with the Nursing and Midwifery Council and the Health and Care Professions Council. Libi Kavungai-Ilteera and Mel Alexandru completed the required examinations to secure their registration with the Nursing and Midwifery Council and both were given a Staff Nurse position at hospital.

Richard Tan completed a series of competencies through work-based learning and has been given Registration with the Health and Care Professions Council (HCPC). Richard was given a Neurophysiotherapist position at the hospital.

Achievements – Support Services team

The support services team at Holy Cross (catering, reception, payroll, laundry and maintenance) help maintain a safe and comfortable environment for our patients and staff.

Increasing the number of caretakers from three to four has enabled us to take on a wider range of maintenance tasks that would have previously been carried out by external contractors. This has had the effect of reducing the turnaround time for maintenance work, enhancing the quality of the workmanship and has also seen a marked reduction in costs.

Over the last year we have carried out various initiatives that have had a positive impact on reducing energy costs, for example:

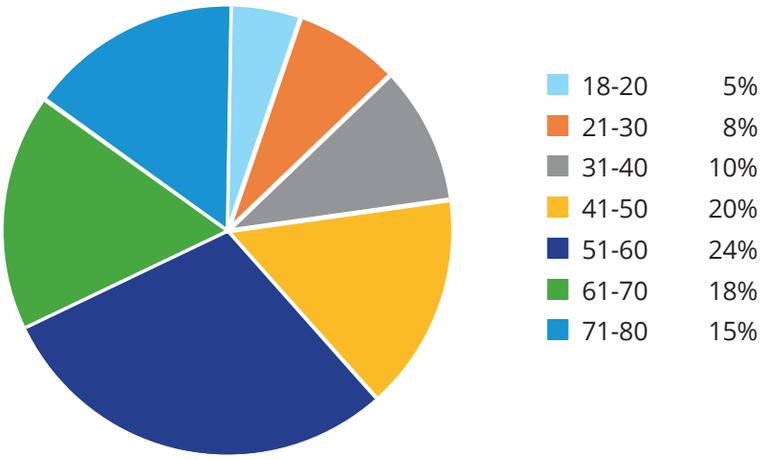
The installation of LED lighting in ward areas

Replacement of the pool plant to include pumps with a 50% reduced energy demand.

In 2018 we concentrated our Support Services Team training efforts on the caretaking team. This was to ensure they have the necessary skills to facilitate as many maintenance tasks in house as possible. This has included ensuring that the entire team has a recognised pool plant operators certificate, they are all trained to carry out Portable Appliance Testing, and designated members of the team have started the necessary training to allow them to carry out work with a chainsaw.

Clinical data

Patients' age range



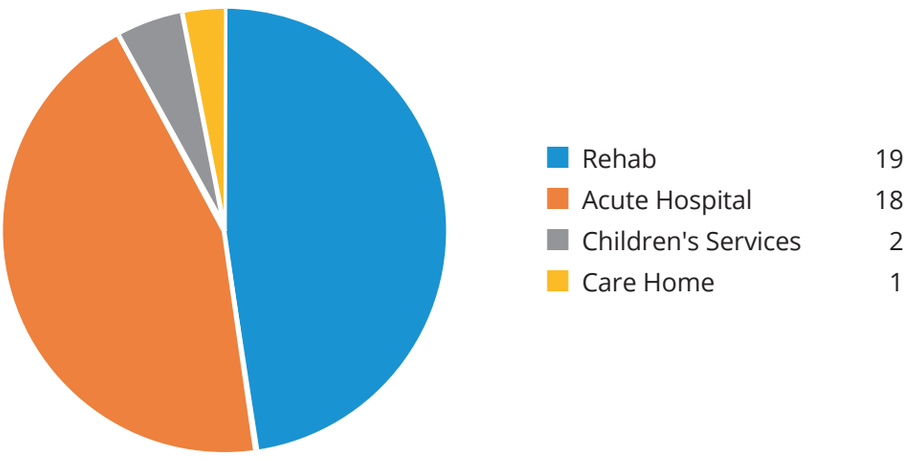
Patient demographics

2018 was a busy year with a larger than usual turnover of patients. One change in 2018 was the admission of a few patients who were transitioning from children's services to adult services. We admitted one patient from a care home, two patients from children's services and other patients from acute hospitals or rehabilitation units.

Age

The majority of the patients at the hospital are over 50 years old, with a steady increase in the number of patients under 30 years old.

Where current patients were admitted from



Long term ventilation

Patients requiring Mechanical Ventilation

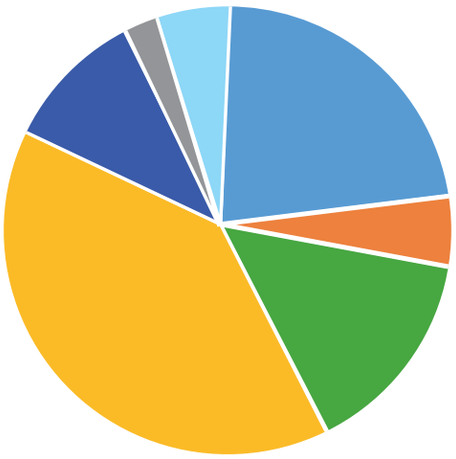
ABI	16%
Guillan Barre Syndrome	28%
Motor Neurone Disease	14%
Idiopathic myopathy	14%
SCI	14%
Other	14%

Patients who required ventilator support had different diagnoses ranging from spinal cord injury to Muscular Dystrophy. Patients needed invasive or non-invasive ventilation with some patients requiring 24-hour ventilator support and some needing only night time ventilation.

Diagnoses

The hospital continues to cater for patients with severe brain injuries caused by traumatic or hypoxic events. We continue to care for patients needing ventilator support, with over 40% of patients having a tracheostomy. Patients were admitted for slow stream rehabilitation or for long term care.

Patients' diagnoses



Hypoxic Brain Injury	9
Progessive Neuron Disease	2
Other	6
Traumatic Brain Injury	16
Stroke	4
Spinal Cord Injury	1
Guillain-Barré syndrome	2

Special interest group (SIGs) updates

The special interest groups continue to enhance their specialist skills and knowledge, and disseminate it throughout the clinical team to provide treatments based on best possible evidence. The work and plans of the ten SIGs are described below.

1. Respiratory SIG

The hospital prides itself in the high quality care and treatment provided to patients requiring complex respiratory management. The SIG has excelled in helping wean patients from ventilators and tracheostomies and in the management of patients requiring long term invasive and non-invasive ventilation.

The SIG has embraced technology to assist with the management of this patient group. The SIG and the wider clinical team have used the cough assistor and blood gas analysing equipment to improve practice at the hospital. The SIG has contributed vastly to reducing the number of infections in this complex high risk patient group.

2. Disorder of Consciousness SIG

The SIG continues to focus on objective assessments of patients with a disorder of consciousness, educating and supporting families and managing stimulation provided to patients. Our Specialist Occupational Therapist is about to complete the Sensory Modality Assessment and Rehabilitation Technique (SMART) training at the Royal Hospital for Neurodisability to become an accredited SMART assessor.

The SIG helped plan the programme for the Conference held in October 2018.

3. Continence SIG

The Continence SIG members attended a national conference to keep themselves updated on recent developments. With knowledge enhanced through the conference, the members implemented an assessment pathway for the suitability of continence products, and reinforced good practices to keep infection rates low.

The SIG plans to publish a newsletter and contribute to the clinical audits in 2019.

4. Nutrition and Dysphagia SIG

The International Dysphagia Diet Standardisation Initiative (IDDSI) has published international standardised terminology and definitions for texture modified foods and thickened liquids for people with dysphagia. The SIG focussed on implementing IDDSI within the hospital and training staff.

5. Physical Management SIG

The Physical Management SIG contributed to the consensus meeting on developing the Physical Management for DOC Patients' Guideline. The SIG presented a case study as a poster at the conference. The SIG plans to continue to improve physical management interventions (spasticity, contracture and 24-hour posture management) at the hospital using the latest evidence available in the field.

Spasticity management

Spasticity management is challenging due to the diversity of patient presentation and goals or aims of treatment. This includes a combination of physical and pharmacological management, often using a variety of different approaches according to the individual patient's needs (RCP, 2018).

Local intramuscular injection of botulinum toxin (BoNT) is an established, well-tolerated treatment in the pharmacological management of focal spasticity. There is a strong body of Level I evidence for its effectiveness in the management of both upper and lower limb spasticity (RCP, 2018).

Why does spasticity matter?

Spasticity matters because it causes pain and deformity which:

Increases disability (impairing mobility, self-care, ease of hygiene etc.)

Increases complications, e.g. pressure sores (especially with our long-term care patients)

Feeds into a cycle of poor posture, which in turn exacerbates the spasticity.

Management options for spasticity include:

Focal, regional or generalised.

- Focal spasticity: Mainly addressed using Botulinum toxin injections combined with physical management interventions such as splinting, positioning and posture management.
- Very effective for regional spasticity in lower limbs and trunk (RCP, 2018). The main advantage is that it can be delivered directly to where it is needed and thereby reduces the unwanted side-effects of drowsiness and impaired cognition, which are some of the common side-effects of oral medications (RCP, 2018). Two of our patients at Holy Cross Hospital have a pump fitted to them to help manage their regional spasticity.
- Generalised spasticity: For patients who present with more active ability, exercises to promote active movements are also incorporated into their therapy programme.

A range of outcome measures are used to measure the effect of treatment. These include:

1. Modified Ashworth Score (MAS) to measure spasticity
2. Range of movement of joints
3. Distance between limbs/body parts
4. Goal Attainment Scale (GAS)
5. Spasm frequency score
6. Carer rating scales

At Holy Cross the most commonly used outcome measures are the range of movement of joints, the Modified Ashworth Scale (MAS) score and the distance between limbs/ body parts.

Following on from the trial of the surface Electromyography (EMG) in patients with a disorder of consciousness, we are now in the process of establishing it in routine clinical practice as a way of measuring muscle activity more accurately and to assist our clinical decision making.

Spasticity Interventions

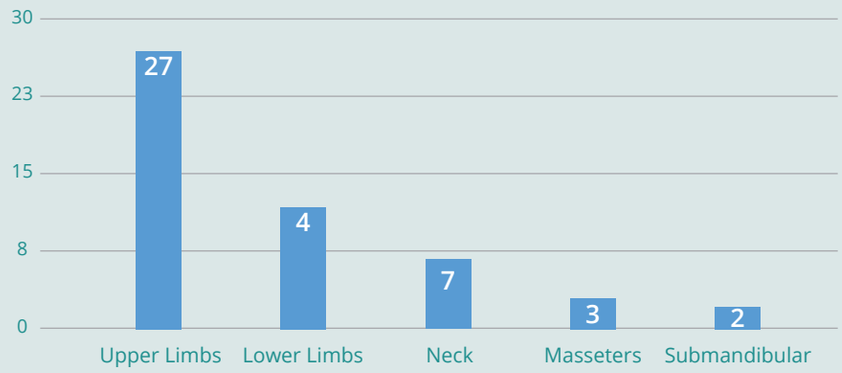
Patients receive a variety of interventions to manage spasticity. Common interventions include stretching, splinting, oral anti-spastic medications or specialist interventions e.g. Botulinum injections or intrathecal treatments.

The graph below shows the number of injections carried out in 2018 and also the common site of injections in our patients. Due to difficulties associated with maintaining patients' skin hygiene in the palm, hand and elbow crease, and at times difficulties with splint application, upper limb muscles are most commonly injected.

Some of our patients present with increased spasticity in their neck muscles which can interfere with optimal positioning of their neck when seated. To address this, focal treatment using BoNT is indicated to prevent further muscle shortening. This allows optimal positioning of the head and neck for communication, their social interaction, their use of power wheelchair and for respiratory function.

For lower limb injections, the main aims are to enable access for personal care needs and to maintain an adequate range of movement for seating. Masseters and submandibular glands are also injected in some patients with the aim of reducing lip biting and to enable mouth opening (to allow access for oral care and as well as minimising oral secretions).

Injection Sites

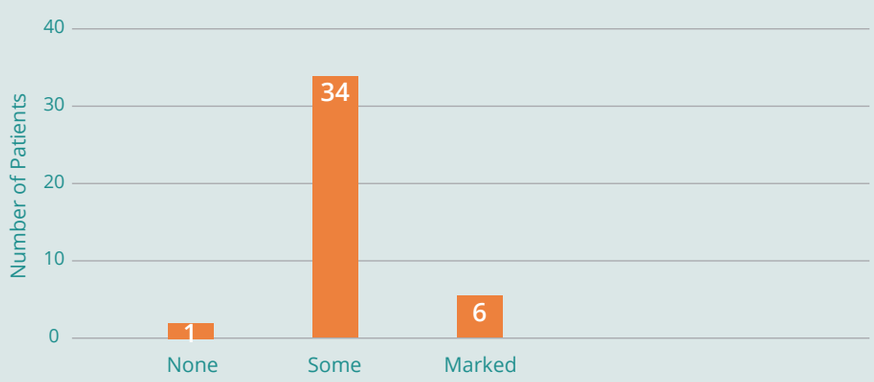


Specialist Spasticity Intervention

The graph below also shows the outcome of post-injection effects noted in our patients as measured using the Range of Movements, MAS and Carer Rating scores. Most of our patients showed some beneficial effect: either improvement in their joint range of movement and/or reduction of at least one to two points in the MAS scores compared to baseline measures. There are some patients who have shown marked improvements in their outcome measures and have not needed repeat injections to certain muscle groups.

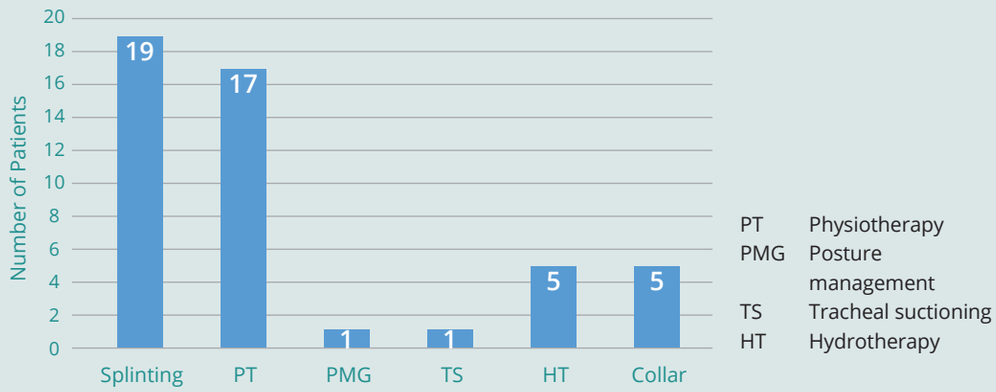
Effect of botulinum toxin injections

Post Injection Effects



Patients at Holy Cross receive appropriate post-injection management as per the recommendation of national RCP Spasticity in Adults guidelines (2018). The management of spasticity is complex and requires a multi-disciplinary team (MDT) working together with the patient and family/carers (RCP, 2018). Post-injection physical management programmes include splinting, physiotherapy, posture management and other relevant interventions to maximise the benefits of focal treatment. Periodic post-injection reviews are also carried out as per the recommendation of Adult Spasticity Guidelines (RCP, 2018).

Post-Injection Management, 2018



A large number of patients at Holy Cross Hospital are provided with splints as part of their spasticity management and contracture prevention (please see graph above). As stated in the RCP, 2018 guidelines:

- Splints are typically removable devices and can be bespoke or generic and commercially manufactured. They are usually made of moulded plastic or resin and applied to the limb using 'Velcro' straps (RCP, 2018).
- Casts are bespoke cylindrical devices that enclose the limb circumferentially and are usually made of plaster or fibreglass (RCP, 2018).
- Here at the hospital we use fibreglass material and the splints are divided to form a removable cast that can be reapplied with strapping on a daily basis to provide a prolonged low-load stretch over a period of 4-5 hours.

At the end of 2018 we started trialling use of a different material (Delta-cast Conformable) which is made out of a resin formulation.

As shown in the graph above, our patients receive physical management programmes such as splinting, physiotherapy, posture management and other interventions to maximise the benefits of focal treatment.

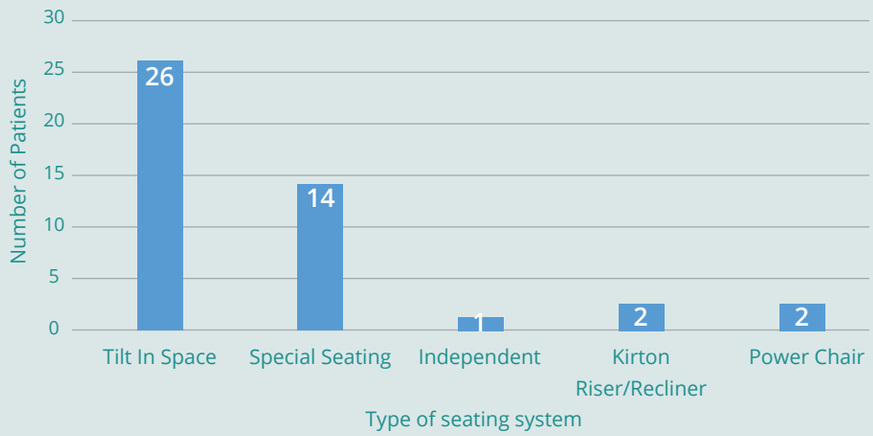
24-hour posture management

Mobility, transfers and posture management

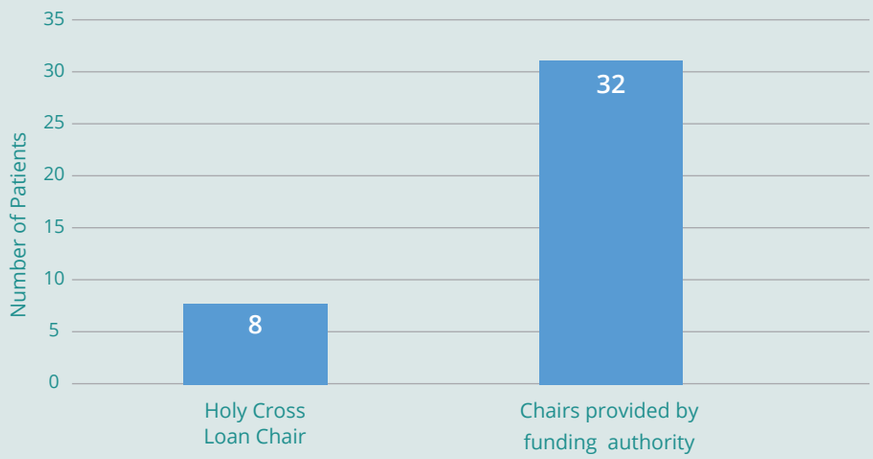
Patients admitted to Holy Cross undergo a comprehensive assessment by the Physiotherapists and Occupational Therapist to address issues related to mobility, transfers and posture management. Depending on their condition patients receive regular therapy sessions on dry land and in the hydrotherapy pool.

Patients use a variety of wheelchairs including, self-controlled electric wheelchairs, attendant propelled electric wheelchairs, tilt in space manual wheelchairs, soft chairs (Kirton) and special seating systems. A majority of the patients use tilt in space wheelchairs which are customised to individual's postural needs including various types of pressure relieving cushions. Several of our patients also use customised special seating systems (Foam Carve/Lynx system) as they are unable to be seated using a standard tilt in space wheelchair due to their complex postural needs. The graph below shows the types of wheelchairs commonly used by our patients.

Types of Wheelchairs 2018



Breakdown of Wheelchair provision 2018



Posture management includes optimal positioning of patients in the bed and wheelchair as part of the 24-hour approach. Therapists work closely with the nursing team and tissue viability team to ensure that the patients who are at high risk of skin breakdown, or who already have skin breakdown, are frequently turned in bed, use an appropriate pressure relieving mattress and suitable pressure relieving cushions to promote healing of pressure sores.

A few air based cushions (Polyair) have also been purchased to ensure that patients, who are at high risk of skin breakdown, are still able to be seated for participation in therapy and other activities of interest. This is carefully assessed and reviewed with nursing colleagues as needed.

A majority of our patients at Holy Cross are transferred using manual handling aids such as slings, hoists and sliding sheets. Patients with differing abilities need varied levels of assistance and/or supervision when transferring. Aids used include banana boards, rota stand with or without verbal cues, and stand aid with an appropriate sling based on the individual's needs.

Posture management forms the major part of physical management. All patients are assessed and provided with necessary posture management aids for positioning in bed and in their wheelchair. Written documentation includes care plans and positioning guidelines that are used to act as a point of reference and to maintain consistency in positioning. This is reviewed regularly or as needed.

The procurement of wheelchairs continues to be a very complex process which is dependent both on need and the funding area the person is admitted from. We have managed to engage with the NHS special seating service in Roehampton who provide a number of in-house clinics for our patients. We also use independent specialist seating companies to explore the best seating options available for people with complex needs. We continue to work closely with Sussex Care Centres for the provision of tilt in space wheelchairs for some patients, and purchase powered wheelchairs as needed for others.

6. Medicine management SIG

The SIG focussed on various initiatives to improve practice, reduce risks and manage costs. The use of a safer insulin needle was adopted to reduce needle stick injuries and a system was put in place to manage stocks and PRN prescriptions to effectively manage wastage. The SIG continues to work with Ashtons Pharmacy to review patient medication regimes on time and act on the pharmacy's audit findings in line with our continuous improvement strategy.

7. Neuropalliative care SIG

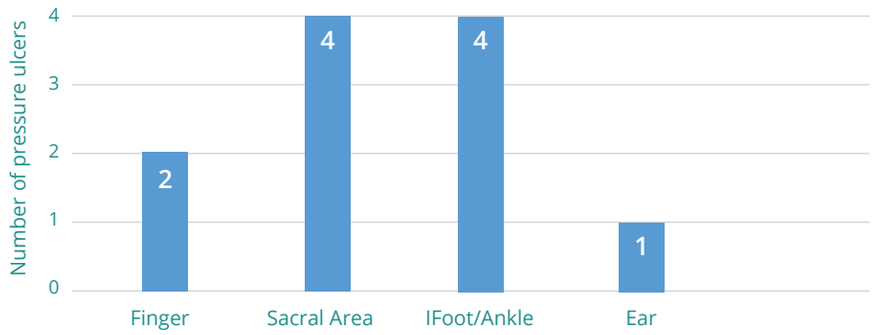
The neuropalliative care SIG members attended external courses to keep up-to-date with latest developments in the field. The information from these courses was shared with other staff members through informal and formal teaching sessions. The SIG has formulated procedures for advanced care planning and anticipatory prescribing, and works with specialist external agencies to support patients in need.

8. Tissue viability SIG

The tissue viability SIG consists of senior nurses and therapists who focussed on reviewing the pressure ulcer management pathway, the risk assessment tools in use, and the availability of new dressings for wound management.

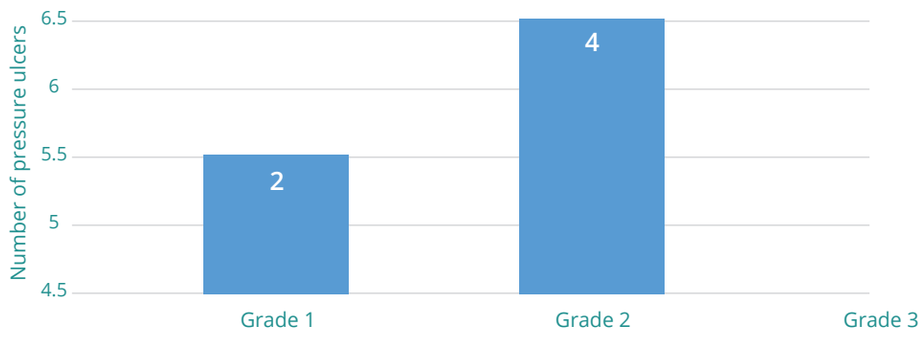
One of our senior nurses has industry experience of supplying pressure relieving devices and wound care products, which will help improve the prevention and management of pressure ulcers. The SIG will be discussing case studies using the Root Cause Analysis methodology to learn from good practice and mistakes.

Location of Pressure Ulcers



Two patients suffered pressure ulcers on their fingers, four patients in the sacral area, four in the foot/ankle area and one patient in their ear. Five patients suffered a grade 1 pressure ulcer and six patients suffered grade 2 ulcers. In three cases the ulcer was caused due to pressure problems. Two patients were admitted with existing ulcers, and in all other cases the cause of pressure was moisture or patient non-compliance with the pressure management regime.

Pressure Ulcer Grades



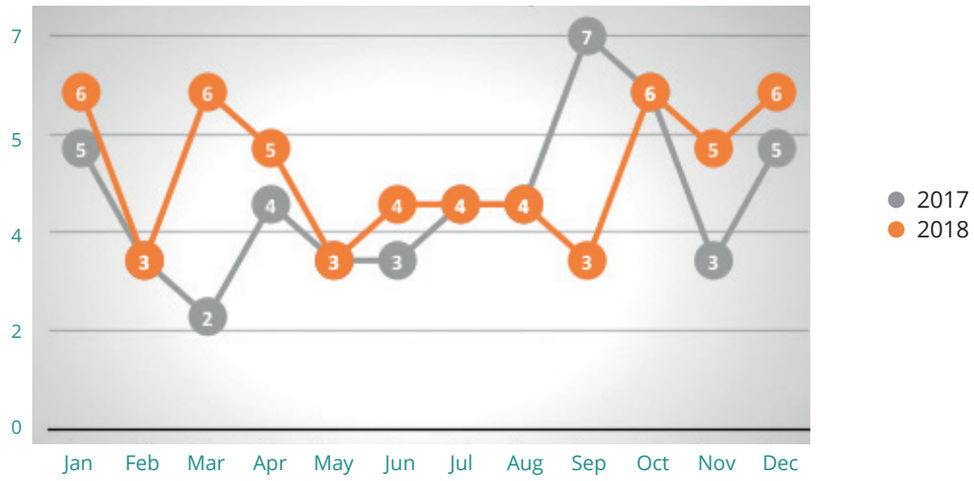
9. Moving and handling SIG

The moving and handling SIG has expanded its membership to include members from all hospital departments both clinical and non-clinical. The SIG's contribution has resulted in safer moving and handling practices throughout the hospital with no patient related incidents in 2018.

The SIG is focussing on completing the Train the Trainers course to further improve practice and training provided at the hospital.

10. Infection prevention and control SIG

Infection rate comparison



There were 55 reported infections during 2018 (49 in 2017), which included 24 chest infections, 9 urinary tract infections (UTIs) and 14 other infections (e.g. skin, PEG, toe, eye, etc.)

Chest infections:

One patient had six chest infections
One patient had three chest infections
Two patients had two chest infections
Eleven patients had one chest infection

The patients who developed six and three chest infections were ventilator-dependent (invasive) and were treated with long-term prophylaxis antibiotics to decrease the frequency of chest infections.

UTIs:

One patient had two UTIs

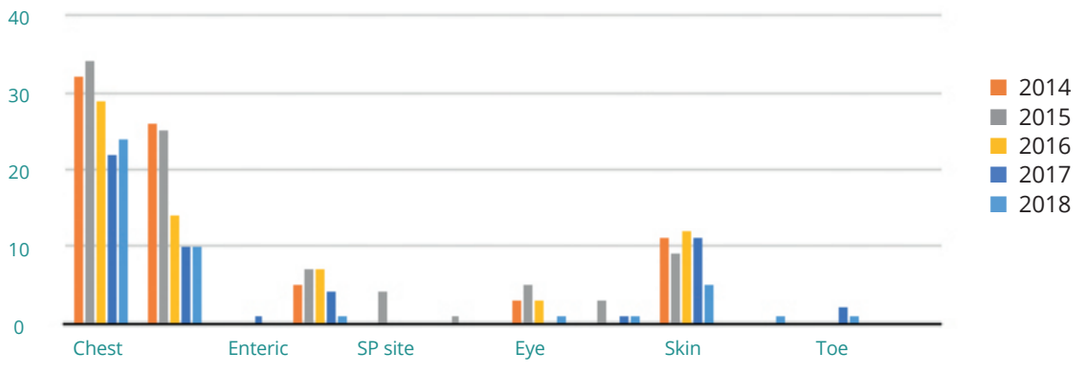
Seven patients had one UTI

Five UTIs (two from one patient) were from patients with long-term indwelling catheters (In total, 17 patients within the hospital had indwelling catheters in situ).

The IPC SIG completed all audits by the end of the year demonstrating excellent levels of compliance against standards. Following attendance at the National IPC conference in April 2018, the team implemented the use of colour-coded hydration charts to prevent episodes of dehydration and reduce risk of UTIs.

The committee members continue to provide IPC-related training at inductions and refresher sessions. The committee has also researched and purchased new equipment/accessories to enhance IPC practice including metal suction catheter holders attached to clinical trollies and adaptation devices for sharps containers.

Sites of infection



Social activities and volunteers

The social activities department acts as the 'heart of the hospital' and provides a variety of opportunities for patients to enhance their quality of life.

The department had another full and busy year in 2018. With the indispensable help of our volunteers there was a wide range of activities within and beyond the hospital.

There were 11 trips to three different theatres to see shows ranging from panto to ballet. The trips always include family members as well as patients.

We also had a home-grown panto, produced and acted by staff members with a special patients' performance in January. There were many shorter outings to venues ranging from Mercedes Benz World to Petersfield boating pond, 10-pin bowling in Guildford, and walks at the Devil's Punchbowl and Wisley Gardens.

Regular monthly tea parties at Marley Manor continue to offer an intimate social setting for patients and their families, and thanks to the good summer.

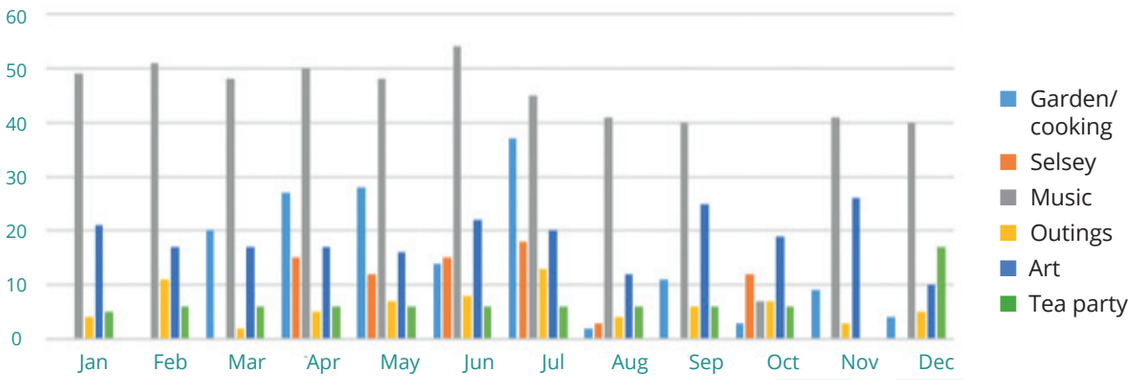
Visits to our holiday cottage in Selsey are our longest outings. With the input of the MDT and nursing staff we have been able to take as wide a variety of patients as possible. Along with the tea parties, these days are invaluable in allowing relatives and patients to spend time together outside of the hospital environment.

A couple of special occasions saw us taking one patient to watch County Cricket from a private balcony overlooking Surrey cricket ground, and another to join in with his brother-in-law's birthday celebrations near Winchester.

At Holy Cross we continue to use technology in creative ways, both in the activities room and the ward sitting rooms. We are also offering more one-to-one time with patients in their rooms. Here again our volunteers enable us to achieve far more than we could ever do alone.

The Art group continues to flourish, they produced an eye catching calendar this year as well as decorating our Haslemere 'Hare of the Dog' (pictured). It is a pleasure to note all the art works around the hospital building, offering a practical demonstration of our continued commitment to always challenge the limits of disability.

Different activities patients attended in 2018

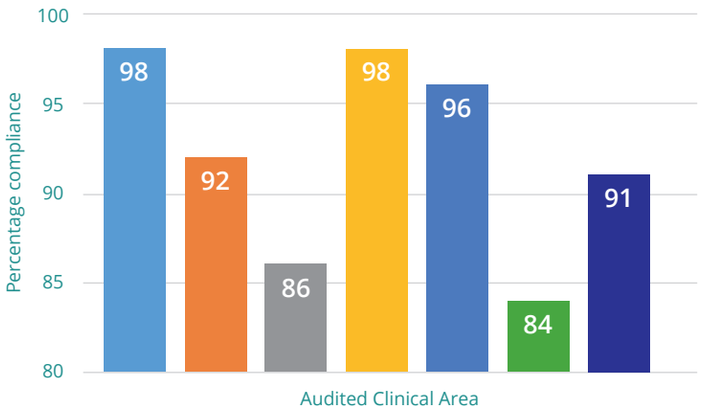


Clinical audits

The hospital aims to improve the quality and outcome of treatment and care for patients by using a range of up-to-date clinical indicators to monitor and improve patient outcomes. The quality of service provision at Holy Cross is measured through a planned programme of clinical audits, which provide a systematic method for reflection and review of practice.

Changes to practice and the organisation of patient care are based on evidence, including both the collection of data and an open and honest reporting structure. Audit reports are shared with management and staff for the implementation of appropriate recommendations.

Clinical audit compliance



- Management of patients with dysphagia
- Management of patients requiring enteral feeding
- Care plans
- Management of patients requiring mechanical ventilation
- Management of patients with or at risk of pressure ulcers
- Wheelchair Positioning
- Positioning

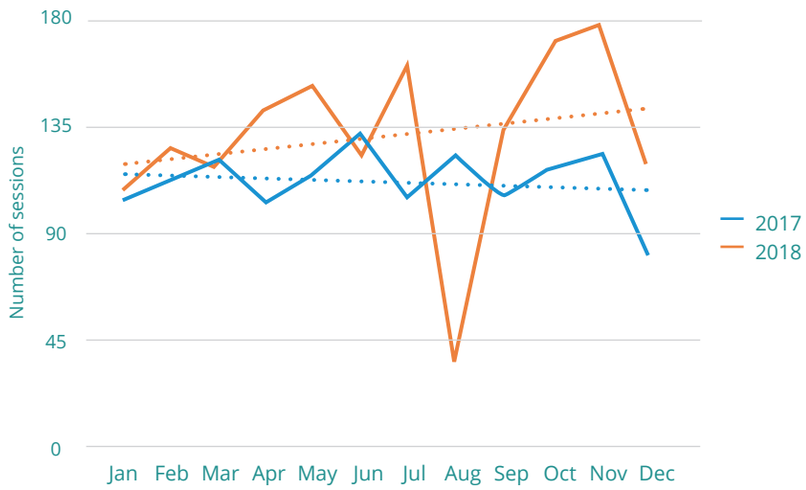
Treatments and services provided at The Physiotherapy Centre

New classes/ treatments

The Outpatient Physiotherapy team introduced two additional Pilates classes in 2018, both of which are now full, so a fourth class is likely to be introduced in 2019.

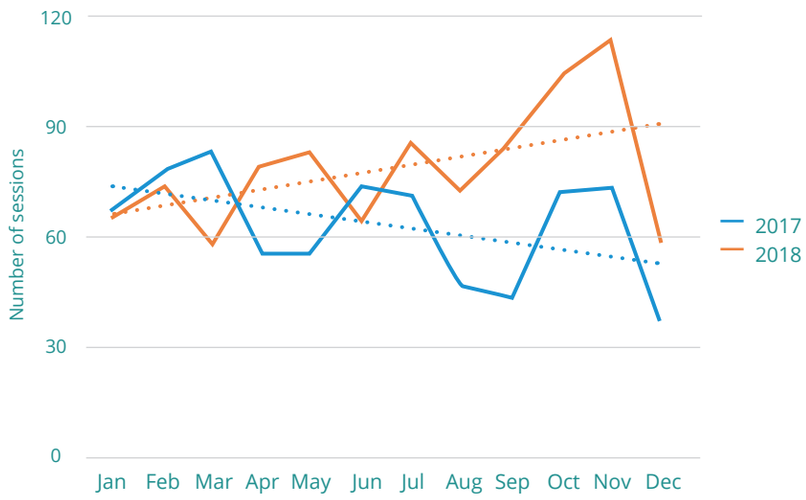
The Hydrotherapist started an Ai Chi class in the pool following completion of her Ai Chi instructor training. Hydrotherapy-based Ai Chi is similar to Ai Chi and is effective for improving balance, co-ordination and flexibility as well as promoting relaxation.

Hydrotherapy 1:1



Patient numbers continue to rise in the hydrotherapy pool and in the gymnasium (Aug – dip due to pool closure for essential maintenance work) as illustrated in the graphs above and below.

Physiotherapy group/self-directed



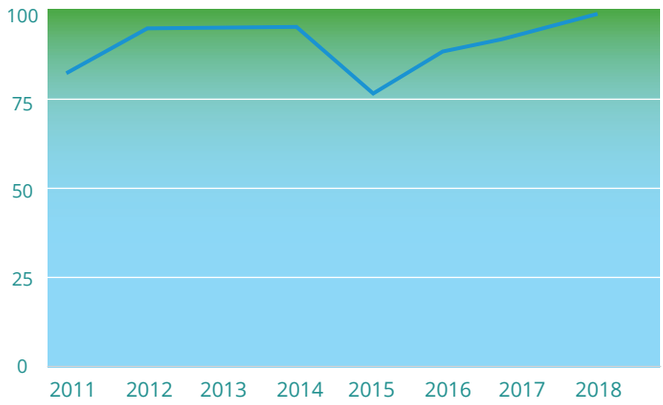
There is now a rowing machine in the gym which is mainly used for lower and upper limb rehabilitation sessions. The team also introduced the post-operative rehabilitation package, which combines physiotherapy, hydrotherapy and other classes aimed at patients who have had recent joint replacement surgery.

The Outpatient Physiotherapy team attended various training courses including a Knowing Pain course (to help management of chronic pain in patients), level 1 and 2 Pilates APPI training, various clinical supervision sessions, customer services training and a rheumatology study day.

Patients and family survey

An annual patient survey is undertaken at Holy Cross Hospital to measure levels of service as perceived by patients and their families. The information is used to assist us in continual improvement and as evidence of the quality and safety of the service that we provide.

What is your overall opinion (from 0-4)?



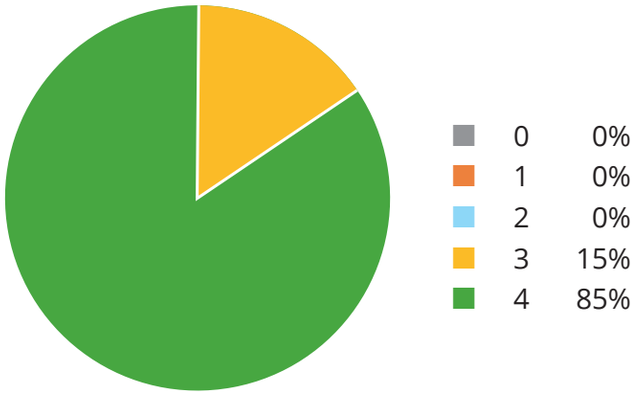
Twenty-one completed questionnaires were returned, representing a 50% response rate; this is slightly below average. 24% were completed by resident patients, 57% by relatives, 9.5% by nominated representatives and 9.5% by 'others'.

Overall the opinion of Holy Cross Hospital is high. This question was rated from 0 to 4 with 100% of respondents rating the hospital as four, a 7% increase from last year.

86% of respondents always or mostly had trust and confidence in care staff. All respondents always or mostly felt that all staff had a shared understanding of their needs. 90% of respondents felt they are always treated with respect and dignity, the other 10% feeling that they were mostly treated with respect and dignity.

All respondents would recommend a friend/family member to Holy Cross Hospital based on their experience.

Proportions of total rated replies (0 is unfavourable and 4 is the highest positive rating)



Questions relating to catering were not answered by some respondents who did not consider the questions to be relevant to them. 69% of respondents rated food and drink with a maximum 4 rating; the remainder rated it with a 3 rating. This shows a significant improvement over last year. All respondents rated the housekeeping service with a 3 or 4 rating, with an upward shift in scores from last year.

All respondents were satisfied with the range of social activities available to them, and all respondents declared they were satisfied with the quality and comfort of the hospital.

Summary and conclusions of the survey:

Rated responses on the patients and family survey are rated on a 5-point scale from 0 to 4. The results are very positive with all rated responses scored at 3 or 4, at the top end of the scale.

The responses to the survey display a continued high regard for staff capabilities. The results of the survey were shared with the Advisory Committee, and with staff and volunteers.

Patient Led Assessment of the Care Environment (PLACE):

The PLACE assessment was conducted in 2018 and the hospital was found to meet the standards required in all areas. The assessment team consisted of patients and patients' relatives who were given a staff member to assist them and take notes. The assessment covered cleanliness and the condition of the hospital, as well as the food provided for patients. The team that carried out the assessment has done so for several years and has noted improvements to the décor of the hospital in that time. The only areas that were noted as looking slightly tired were the ward corridors. These areas have been redecorated since the assessment took place.

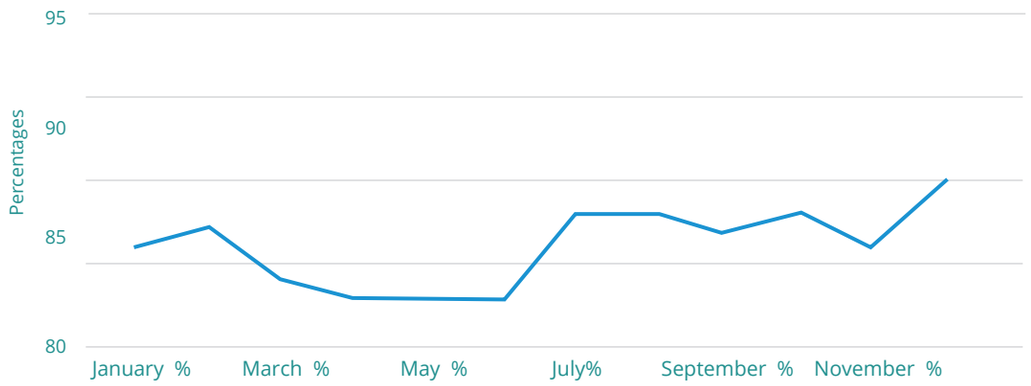
Learning and development

The hospital prides itself on the emphasis it gives to staff learning and development. The learning journey starts from week one where staff take part in a planned induction programme, which is followed up with refresher and specialist in-house training.

All clinical staff are part of a cluster which meets two to three times a year for their clinical supervision sessions in addition to lunch time journal clubs conducted at similar intervals.

The training day format was changed in 2017, our Learning and Development Coordinator has streamlined the provision of different training into four one day blocks. This has greatly assisted in planning the rota and increased the rate of completion of training.

Mandatory Training Completed on Time



We also hosted a variety of neurology and musculoskeletal courses including the ATACP approved aquatic therapy foundation courses, a four-day Posture Management for People with Complex Disabilities course (Oxford Centre for Enablement team), Rheumatology in MSK; and Pilates Mattwork courses to name a few.

Various staff members from both clinical and non-clinical teams were supported to attend conferences, short courses and long courses, resulting in formal qualifications.

Other service developments:

We have introduced patient information leaflets to help patients and families of newly admitted patients.

We are working in partnership with a neurological music therapy provider who assists our patients by providing assessment, rehabilitation and music for pleasure for patients with varying abilities. Patients are referred by clinicians to the Music Therapist for assessment (6-8 weeks) after which a rehabilitation or a maintenance programme is put in place.

The outpatient physiotherapy team has introduced Ai Chi classes and will be using the TM3 patient management system to monitor patient uptake in the gym and the pool.

Plans for 2019

Electronic patient record system: The hospital will be commissioning a customised electronic patient record system in 2019. This will be efficient, help maintain accuracy, help improve accessibility and will make clinical reporting easier.

Collaboration with partners: We will continue our collaboration with academic partners and other centres of excellence in developing and publishing the Physical Management Guidelines and initiating new projects that further improve the assessment, management and care of PDOC patients.

We will continue to strengthen the collaboration with specialist respiratory outreach centres (the Lane Fox Unit and Royal Brompton Hospital) to continue to develop the services for patients dependent on ventilators.

Education will become a large part of our service development in 2019.

> An advanced respiratory training programme will be undertaken by a selected group of senior clinical staff.
>
> Throughout this year the Outpatient Physiotherapy team will provide seminars, education sessions and courses to staff, professionals and service users.
>
> We will host specialist clinical courses including aquatic therapy and Posture Management for People with Complex Neurodisabilities.
>
> We are developing customised ELearning modules to augment in-house training.

The hospital and The Physiotherapy Centre have an increased presence on social media.

In 2019 our Specialist Occupational Therapist will be completing the SMART course and will become an Accredited SMART assessor.

We will constantly look to add relevant medical technology that becomes available to help improve patient care and treatment and to assist staff to improve efficiency.

The Physiotherapy Centre will be 10 years old this July. The Outpatient Physiotherapy Team will launch a post-natal service to help new mothers from the community.

We are coming to the end of two major research projects, The Cochrane Review and The Physical Management Guideline Development project. We expect these projects to be completed in 2019.

Daughters of the Cross of Liege

Holy Cross Hospital is one of a number of charitable 'works' of The Congregation of the Daughters of the Cross of Liege – an order of religious Sisters and a UK registered charity ranked in the top 250 by income (188 in the Charity Finance 2018 survey). Originally moving from Ramsgate to Haslemere in 1917 as a Tuberculosis sanatorium, we later became a community (cottage) hospital, and then, later still, in the 1980s, started to develop a speciality in the care of patients with acquired brain injuries.

For most of the last 100 years the Sisters formed part of the front-line staff and management within the hospital. Since the last sister retired just over 15 years ago their role has continued in a different way through governance oversight (some sisters are Trustees of the charity), through pastoral support and encouragement for staff, volunteers, patients and families (with additional support from our resident chaplain) and through their own daily prayer for the work of the hospital.

Our **Values** reflect our practice at Holy Cross Hospital;

We **Value** the lives of people in our care and, for patients and those around them, will provide

- a place of welcome, dignity and compassion
- a focus on rehabilitation, encouragement, and support
- a culture of high professional care standards, wise stewardship of resources, and openness

Initial discussions have taken place about the hospital becoming its own charitable company, still carrying forward the values it has adopted through the years. In doing so it will allow the Sisters to focus on religious life without the commitments and legal responsibilities of running healthcare establishments. The focus of our work and the values we uphold will remain unchanged. At the current time, no timetable has been set for this organisational change.

Treehouse project

Inspired by friends of a patient who was badly injured in a road-bike accident, and recognising that getting outside of the hospital building to experience nature within our woodland site would be beneficial for both patients and visitors, we designed a woodland platform known as the 'Treehouse'.

Stretching over a steep escarpment, it will allow people to access a raised space which gives views of the woodland from floor to the tree tops and also across the valley. Fresh air, sounds, sights and wildlife will enhance the patient experience at Holy Cross.

Thanks to a terrific fundraising commitment, pledges and grants from the Surrey Community Foundation, The National Lottery, and The Friends of Holy Cross Hospital, the construction will go ahead in 2019.

Holy Cross Hospital

Clinical Outcomes Report 2018

Challenging the limits of severe disability

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