Addenbrooke's Charitable Trust
Registered charity number: 1048868

Grants Bulletin

Issue 6

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This issue's grants in numbers

- 64 grants were made in total, to the value of £936,503

Of these:

- 35 patient support projects - £193,055
- 7 research projects - £132,059
- 4 Cambridge Clinical Research Fellowships – £131,230
- 2 research fellows – £69,550
- 12 pieces of equipment - £308,310
- 4 Innovation Fund projects – £102,299

Welcome to our latest bulletin: Addenbrooke's Charitable Trust (ACT) supports the work of Cambridge University Hospitals NHS Foundation Trust (CUH), which runs Addenbrooke's and the Rosie hospitals. We raise funds for additional and exceptional services, facilities and research.

In addition to raising money for specific appeals, we manage the hospitals' charitable funds. We award grants using a transparent process to ensure donations are spent in accordance with supporters' wishes, to the greatest benefit of patients, their families and those who support them.

With this bulletin we demonstrate the breadth and value of the projects and equipment that our kind donors make possible. Our Grants Committee meets every three months and a full list of initiatives supported at the 30 July and 5 November 14 meetings appears on page 8, alongside more information on how the grants process works.

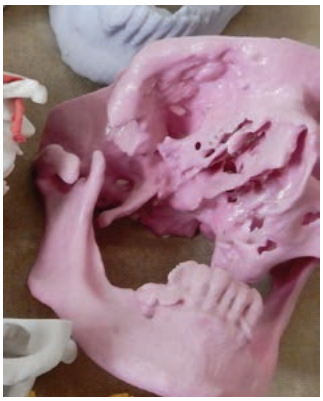
A state-of-the-art 3D printer has been funded through ACT's new Innovation Fund

Innovation grants – shaping the future of healthcare

We are delighted to have launched a new Innovation for Public Benefit grant funding programme.

The scheme, run in partnership with CUH's Innovation Steering Group, supports ideas, services and products that could shape the future for patients. We are seeking to help progress innovative projects that are unlikely to secure support through commercial channels and that cannot be financed through NHS core funds. We will award £200,000 of grants through the scheme over the next two years, each worth up to the maximum of £40,000.

Twelve applications were received at the first meeting in October, of which half were funded. Overleaf is a sample of three.



Clinicians can now be actively involved in the 3D design process

3D clinical care

Background: 3D printing is rapidly becoming an integral component of clinical care, playing an important role in research, patient investigation, education and management as well as student and staff teaching.

The ability to produce anatomically correct models in a cost-effective way is revolutionising the way surgeons approach complex reconstructive surgery, for example, allowing them to perform procedures previously deemed impossible.

Staff at Addenbrooke's did not have direct access to a 3D printer and models had to be obtained from external sources, with inevitable delay.

The application: Following an approach from ACT, The Alborada Trust generously funded an on-site printer and this application to the Innovation Fund was for associated staffing, for two years.

Thanks to these grants, clinicians can now be actively involved in the 3D design phase, speeding up the production process and ensuring the resulting model fully meets each individual patient's requirements.

It is anticipated that around 40-60 models per month will be printed initially, and that this number will increase significantly as the various specialist services in the hospital discover the clinical benefits of the technology.

Comment from the committee: "This service is innovative and will be beneficial to patients by improving surgery planning and reducing operating time."

Grants applicant: Dr Karen Eley

Amount awarded: £40,000 from ACT's Innovation Fund

TREATing reluctant eaters

Background: The paediatric feeding team looks after patients who are dependent on tube-feeding or prescribed nutritional supplements. These patients have a food aversion that makes progression to normal eating difficult and they have to make repeated visits to clinic to be slowly weaned from their nutritional support. This results in quality of life issues for children and their families, and has significant cost implications for the NHS.

The application: The applicants propose running an innovative intensive Treatment for Reluctant Eaters (TREAT) programme to wean children from their tube or supplement dependency over one week. The programme is attended by children and their parents in a playroom setting for two hours per day for five days. The multidisciplinary team facilitates a programme of sensory and food play, singing, storytelling and free play to support families and their children to actively reduce or cease the artificial nutrition.

Comment from the committee: "This is a strong application, which offers positive benefits for patients and their families, plus economical benefits for the NHS."

Supporting families and their children to reduce or cease artificial nutrition

Grant applicant: Dr Camilla Salvestrini

Amount awarded: £29,770 from ACT's Innovation Fund

TrackyMyPSA

Background: Over 80 per cent of men with prostate cancer will survive for at least five years and these rates are improving steadily. However, they all need monitoring and follow-up checks of their PSA (prostate specific antigen) blood levels. Currently, men have their PSA tests done in primary care and their results are reviewed with them in an outpatient clinic at the hospital.

There are currently 2,000 men being treated this way at Addenbrooke's, but the situation is becoming unsustainable as the population grows.

The application: The applicants have developed a new web tool, called TrackMyPSA, to empower patients to self-manage their PSA levels. The tool features include email PSA check reminders, the ability to set warning thresholds and log interventions. It also has a single screen chart display and can be easily accessed across any clinic or primary care setting.

Comment from the committee: "Successful implementation of TrackMyPSA could significantly reduce the need for frequent clinic visits, increase confidence in PSA monitoring and allow patients to take charge of their own follow-up".

Grant applicant: Mr Vincent Gnanapragasam

Amount awarded: £13,750 from ACT's Innovation Fund

Vincent in consultation with prostate cancer patient, Peter Beaman

Equipment grants awarded

Silent plaster saws

Background: The noise of the saw used in plaster removal can frighten children, causing emotional upset during this necessary part of treatment after trauma.

The application: Two QuietCast 'silent' saws were requested in this application as a simple solution to lessen children's distress. The first saw will be used in the main plaster room and the other used in the Emergency Department and on the wards.

Comment from the committee: "This is a very good idea and value for money. We are confident that the saw will have extensive use across the Trust."

Grant applicants: Mrs KK Stohr and Erich Zammer

Amount awarded: £2,867 from ACT's unrestricted funds

IBDs in numbers

- Examples of IBDs include Crohn's disease and ulcerative colitis.
- These diseases currently affect around 240,000 people in the UK.
- Up to 30% of IBD patients are diagnosed in childhood.
- The Department of Paediatric Gastroenterology at Addenbrooke's looks after around 200 children with IDBs, with over 50 new cases each year, leading to numbers almost doubling over the last three years.

Patient support grants awarded

Improving care for children with inflammatory bowel disease

Background: Addenbrooke's staff currently care for around 200 children suffering from inflammatory bowel diseases (IBDs) each year. In the absence of a curative treatment, children face a poor quality of life, impaired growth and development, long-term immunosuppressive treatment and surgical interventions.

Ideal management of IBD requires individual interpretation of multiple physical, biomedical and clinical factors, with adherence to best practice standards. Significant variation in care currently exists between individuals, units and even countries, resulting in a wide variation in patient outcomes. Quality Improvement (QI) methodologies enable the analysis and interpretation of huge datasets from complex systems, providing new insights, rapid oversight and more proactive interventions.

The application: With the introduction of the trust-wide eHospital platform, Epic, the gastroenterology team has the opportunity to join the collaborative care network, ImproveCareNow, which has improved the quality of health and costs of care for children and adolescents with IBD in 62 centres across the US and Europe.

By joining this expanding group, Addenbrooke's staff will be able to benchmark their service against some of the world's leading paediatric IBD centres, ultimately transforming the care provided to children at Addenbrooke's.

Comment from the committee: "This is a good transformative initiative."

Grant applicant: Dr Matthias Zilbauer

Amount awarded: £69,820 from ACT's unrestricted funds

Helping older patients

ACT is currently running an appeal to raise £500,000 to transform more of the hospital's wards to ensure that older patients experiencing dementia or delirium are cared for in an environment tailored to their needs. To see more, visit www.act4addenbrookes.org.uk/comfort or call the fundraising hub on 01223 217757.

Improving the environment for patients with dementia

Background: The number of older people in Cambridgeshire is rising fast. Over the 30 years to 2031, it is predicted that the number of over 65s will increase by more than 71%, and the percentage of people aged over 85 is set to soar by 131%. As the population ages, more patients being treated at Addenbrooke's will have varying stages of dementia or delirium.

These patients can find the environment disorientating and frightening and may consequently become even more confused. However, there is much that can be done to help them adapt to the new environment.

The application: This application focuses on enhancing the ward environment for these vulnerable patients, introducing art and design to help with wayfinding, make the ward less confusing and provide distraction and talking points for patients.

Comment from the committee: "This application will hopefully positively impact on patients' ability to recover and complements ACT's wider fundraising for this important development."

Grant applicant: Rachel Northfield

Amount awarded: £5,000 from ACT's unrestricted funds

Positively impacting on older patients' ability to recover

Type 2 Together

Background: Staff at Addenbrooke's have been working with Diabetes UK on a project called Type 2 Together, originally funded by the Cabinet Office. The project was developed following the success of a trial called RAPSID, which demonstrated a lowering of blood pressure in people with diabetes who receive group peer support.

The application: The application was for funding to maintain and extend the community-based support in Cambridgeshire, where volunteer peer support facilitators and their groups had insufficient funds to cover the costs of venues needed.

Comment from the committee: "This grant will provide important community support to people with Type 2 diabetes."

Grant applicant: Sarah Donal

Amount awarded: £8,000 from ACT's unrestricted funds

Cervical cancer: the facts

- There were around 3,100 new cases of cervical cancer diagnosed in the UK in 2011, which is more than 8 women every day.
- The cervical cancer incidence rate is 7.2 per 100,000 of the female population in the East of England, compared with an 8.7 average for England.
- Around 920 women died from cervical cancer in 2012 in the UK, that is more than 2 every day.
- More than 6 in 10 women with cervical cancer survive their disease for at least 10 years.

Sources:

- Cancer Research UK - http://bit.ly/1rTjYhj
- NHS Cancer Screening Programmes - http://bit.ly/12u2z3n

Research grants awarded

Treating cervical cancers

Background: Large cervix cancers are potentially curable using external pelvic radiotherapy, followed by internal radiotherapy to the cervix (brachytherapy). The aim of this treatment is to eradicate the cancer, while minimising long-term side effects to the bowel and bladder. Older brachytherapy methods could not identify pelvic organs and/or cancer clearly, but this is now possible with a new method of image-guided brachytherapy (IGBT).

One hospital, which has already trialed IGBT, reported a 20 per cent improvement in eradicating the cancer and a 10 per cent reduction in side effects, compared with older brachytherapy methods. Not all patients benefited from the treatment, however.

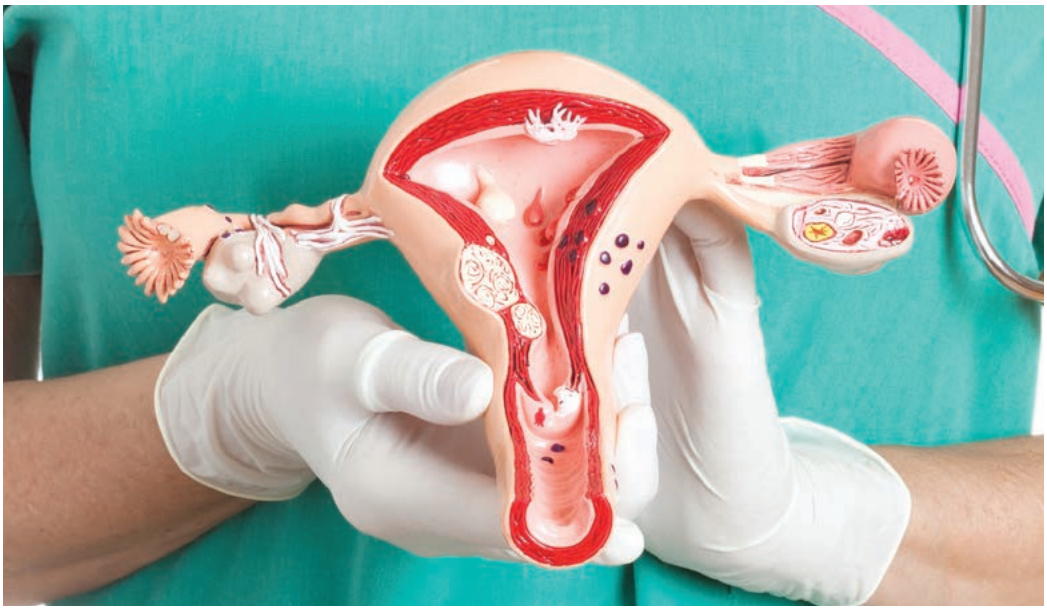
The research: This study will look at uncertainties with IGBT that could account for variations in outcomes and establish ways of limiting these for future treatment. These results could help form new national and international guidelines for IBGT.

Comment from the committee: "This is a very worthwhile study and we are impressed with the applicants' achievements to date with other sources of funding".

Research title: Factors affecting variation in brachytherapy planning in the treatment of cervical carcinoma

Grant applicants: Vivien Tse and Li Tee Tan

Amount awarded: £15,235 from ACT's cancer research fund



Measuring Alzheimer's disease in people with Down's syndrome

Background: People with Down's syndrome are at very high risk of developing Alzheimer's disease, and do so at younger ages, compared to the general population. EEG (a technology which records brain activity through electrodes placed on the scalp) may have a role to play in screening this 'at risk' population.

The research: The aim of this study is to investigate whether EEG, which is entirely safe, relatively cheap and undemanding for participants, has the potential to both measure the effects of aging on the brain and indicate early stages of Alzheimer's in people with Down's syndrome.

Comment from the committee: "This is a worthwhile and well designed study."

Research title: EEG measures of aging and Alzheimer's disease in Down's syndrome

Grant applicants: Sally Jennings, Howard Ring and Anthony Holland

Amount awarded: £10,000 from ACT's general medical research funds

Research fellowships awarded

ACT's Cambridge Clinical Research Fellowships support promising clinicians who wish to embark on a programme of research training.

The scheme sits at the earliest stage in the pipeline of nurturing the next generation of clinical academics by providing short-term support (one year or less) and access to experienced mentorship and supervision.

In this period, the following fellowships were awarded:

Daniel Greave
working with Paul Lehner
- A forward genetic screen to identify genes required for silencing HIV

Alexandra Riding
working with Menna Clatworth
- Identification and characterisation of group 3 innate lymphois cells in the human kidney

Fleur Talbot
working with Sadaf Farooqi
(Fellowship supported by the Evelyn Trust)
- Characterisation of novel obesity-associated mutations in GPR10

Ruwani Wijeyekoon
working with Roger Barker
- Investigating the role of the immune system in disease heterogeneity in Parkinson's disease

To see more about ACT's research fellowship programme, visit www.act4addenbrookes.org.uk/researchfellowships

Amount awarded: £69,820 from ACT's unrestricted funds

Fern, left, with patient Jamie Cornish and Jane Ramsey, CUH's Chair, launching the new packs

Project feedback

Having fun in hospital

An Addenbrooke's staff member has spearheaded an initiative to develop activity packs for children who are patients or visitors in hospital, thanks to funding from ACT and the Cambridge News.

Fern Clark, who works in the Addenbrooke's contact centre, successfully applied for a £2,000 grant from our patient amenities fund to create activity packs for children in hospital.

The packs, which are available at the hospital's main reception desks, include stickers, cardboard doctors' and nurses' hats, crayons and an activity booklet with a hospital-themed word search, spot the difference and dot to dot. The packs also feature a specially designed cartoon character called 'Dogtor Barker'.

Fern said: "We want to make everyone's experience of hospital the best possible, so if we put a smile on a child's face then I think we are heading in the right direction."

All grants awarded in July and November 2014

How the grants process works

The Grants Committee advises ACT's trustees in setting their grant-making strategy and priorities.

Applications are received by the Research Advisory Committee (RAC), chaired by Dr John Bradley, and the Professional Advisory Committee (PAC) for non-research applications, chaired by Dr Rob Ross Russell. Committee members review each application and make recommendations to the Grants Committee for ratification. All committees meet four times a year.

Some grants are made from designated or restricted funds, where supporters have stipulated how they would like their donations to be spent. Other grants are made from unrestricted funds, which are vitally important because they give ACT's trustees the flexibility to meet patients' needs as and when they arise across the hospitals.

Grant title and amount awarded	How this benefits patients
Support for two research fellows £69,550	This support extends the professional development of two doctors who will help set up clinical trials to improve treatment for chronic lung disease in infants. Their research will also help further the understanding of how to accelerate lung development in premature babies.
Serial sequencing of multi-visceral transplant patients who have drug-resistant CMV by next generation sequencing £14,868	Addenbrooke's is one of only two UK centres to perform multi-visceral organ transplant (MVT – the transplantation of three or more abdominal organs en bloc). Drug resistant viral infections, such as cytomegalovirus (CMV), can be life-threatening in these patients, and this project is part of a wider body of research to make available a clinical test to detect drug-resistant CMV in Addenbrooke's patients.
Pre-transplant ex vivo normothermic machine perfusion of human livers donated after circulatory death; potential for liver viability assessment and amelioration of ischaemia-reperfusion injury £15,000	At the time of donation, organs such as the liver are deprived of blood circulation and placed in cold storage until transplantation. This project will investigate a new way to improve the condition of donated livers, to increase the number available for transplant and also improve outcomes for recipients.
Optimising GEMINI: a new tool for genetic testing £30,355	This research will optimise a new genetic tool (GEMINI) to develop a quicker, more cost-effective test for routine genetic diagnosis for patients with muscular dystrophies and other genetic disorders.
2 x silent plaster saw £2,867	Children are often frightened by the sound of a plaster saw. This piece of equipment is a simple solution to lessen the upset for children while having plaster removed.
Child and family support service for children with brain injuries £10,000	This service will deliver emotional and non-clinical support for children with brain injuries and their families.
Ultrasound machine for the Rosie Hospital £12,000	This dedicated ultrasound will support as many as 650 mothers a year needing epidurals, spinals and nerve blocks, among other treatments.

Forthcoming grant application deadlines

RAC

15 April 2015

(Applications will be processed in the order they are received and submitted to the next meeting which has available capacity).

PAC

16 April 2015

(Deadline for applications: 26 March)

Grants

13 May 2015

(Please note that applications cannot be made directly to the Grants Committee)

If you work within Addenbrooke's or the Rosie and would like to apply for a grant, please visit: http://connect/index.cfm?articleid=6074

Grant title and amount awarded	How this benefits patients
Type 2 Together – Peer support in type 2 Diabetes £8,000	This funding will enable people with type 2 diabetes to meet and maintain peer support groups to self-manage their blood pressure.
6fr rigid paediatric cystoscope £5,500	This small cystoscope will allow for more comfortable examination of the interior of the urinary bladder, reducing the risk of complications for younger patients.
Grant extension: Inclusive hospital picture menus £5,230	These menus will help patients choose their meals in a dignified and accessible way.
Early neuromuscular electrical stimulation (combined with early cycle training) to prevent ICU-acquired weakness in critically ill patients £18,779	This will benefit patients by addressing, preventing and treating intensive care unit acquired weakness. This is experienced by 25-30 per cent of patients and involves muscle weakness, sepsis and reduced mobility, among other problems. This approach will mean patients can leave the unit faster with an improved quality of life and reduced neuropsychological and social functioning problems.
Staffing for the new 3D printing service £40,000	The staff will help to manage the newly funded on-site printer, which will speed up model production times and ensure the resulting models fully meet each individual patient's requirements.
Treatment of Reluctant Eaters programme £29,770	This innovative intensive programme will help to more quickly wean children from their tube or supplement dependency.
TrackMyPSA £13,750	Successful implementation of TrackMyPSA will significantly reduce the need for frequent clinic visits, increase confidence in PSA monitoring and allow prostate cancer patients to take charge of their own follow-up.
2 x Zeiss Cirrus photo machines £77,000	These two combined retinal cameras / optical coherence tomography machines will help patients be seen faster, as demand for retinal imaging increases.

Grant title and amount awarded	How this benefits patients
10 x LED phototherapy units £19,950	The phototherapy units are used to treat jaundice, preventing or reducing a number of complications in vulnerable babies, including brain damage.
BX53F microscope and supporting equipment £20,768	This microscope will help detect blood cancer cells.
Empower CTA injector, ceiling mounted – accessory for CT scanner £15,500	Powered injectors remotely deliver X-ray contrast media to patients. This enables gold standard diagnostic images to be produced in situations ranging from traumatic injuries to staging of diseases and carrying out procedures that would otherwise require surgery. Patient outcomes are hugely improved by the information provided by these images. Tumours, acute bleeding and infectious processes would often be very difficult to spot without such contrast media enhancement.
2 x Respironic V60 non-invasive ventilators – CPAP machines £19,195	This equipment will provide enhanced respiratory support for patients admitted to the coronary care unit with acute pulmonary oedema.
SonoSite EDGE machine £21,456	This device will provide better vascular access for infants and children being admitted to the paediatric intensive care unit.
Portable ventilator/Oxylog 3000 £10,688	The number of patient transfers around the hospital is increasing. Having this portable ventilator will provide vital support for patients and help staff cope with demand.
Factors affecting variation in brachytherapy planning in the treatment of cervical carcinoma £15,236	Image guided brachytherapy is a new method for more precisely delivering radiotherapy in the treatment of cervical cancer. This study will help understand why not all patients are benefitting from this treatment.
The natural history of continence and incontinence post robotic radical prostastectomy (The ProsPUR study – Prostate Perineal Ultrasound Research) £20,000	Some but not all men develop incontinence following surgery to remove prostate cancer. This study will assess the feasibility of using ultrasound to examine pelvic floor muscles (extensively studied in women) and help men at risk of developing incontinence post-surgery.

Grant title and amount awarded	How this benefits patients
EEG measures of aging and Alzheimer's disease in Down's syndrome £10,000	This study will determine whether EEG can help identify the early stages of Alzheimer's disease in people with Down's syndrome.
Characterisation of genetic abnormalities in MALT lymphoma £11,600	Recent research at CUH has uncovered some of the mutations in the genetic code associated with mucosa associated lymphoid tissue lymphoma. This project will take this research further to determine which of these mutations are the most damaging and cause the changes that lead to this cancer.
Cambridge Clinical Research Fellowships **1 A forward genetic screen to identify genes required for silencing HIV: Daniel Greaves** **2 Identification and characterisation of group 3 innate lymphoid cells in the human kidney: Alexandra Riding** **3 Investigating in the role of the immune system in disease heterogeneity in Parkinson's disease: Ruwani Wijeyekoon** £125,435 (co-funded with the NIHR Cambridge Biomedical Research Centre)	1 Current antiviral treatments for HIV 'silence' or make the virus dormant, transforming life expectancy for these patients. But as soon as treatment stops the virus can reactivate. This research aims to understand how to prevent reactivation. 2 Acute kidney injury is problematic for patients in intensive care. This project will help better understand how kidney damage is caused, focusing on a group of immune cells (called innate lymphoid cells) and the role of interleukin 17, which is known to be involved in inflammation. 3 The symptoms of Parkinson's disease vary from patient to patient. This study will determine whether the immune system plays a role in causing dementia, which can dramatically reduce quality of life for some Parkinson's patients
Giggle Doctors for children at Addenbrooke's Hospital £10,000	Children receiving difficult and often distressing treatment will be cheered and distracted by these play experts.
Laughter Specialists £10,000	This laughter and humour therapy will help improve young patients' wellbeing, especially at times of stress.
Electronic recliner chairs for the discharge lounge £5,000	These chairs will provide enhanced comfort for patients waiting to go home.

Making a difference for patients by supporting future initiatives

If you have been inspired by the range of equipment, research and patient support projects highlighted in this edition of the Grants Bulletin and might interested in supporting future programmes, please do get in touch with the ACT team.

Whether you have a particular area of interest or would like your contribution to be directed wherever the need is greatest, then the team would be very happy to speak to you about the initiatives that currently need support.

Thank you. You can make a difference.

Grant title and amount awarded	How this benefits patients
G6 improvements – changing the environment to support patients with dementia £5,000	Several new artworks and design features will help make the ward less alienating and frightening for patients with dementia.
Patient valuables ward safes £3,293	With these new safes, patients will be able to more securely store their valuables.
CritiCool patient cooling systems £20,000	When a child suffers a brain injury following an accident, infection or arrest, there is concern that their brain may swell. The CritCool system helps to lower the child's body temperature, reducing swelling. By protecting the brain in this way, outcomes are likely to improve, lessening the chance of disabilities following these traumatic events.
Optomap 200Tx system with AF and FA capability £60,000	Optomap is a new development in retinal photography, which allows visualisation and digital documentation of almost the entire retina. With this system, the ophthalmology team plans to develop virtual clinics, helping them to meet waiting targets and reduce patient delays.
2 x new V60 non invasive ventilators for use in rapid response beds £24,645	These non-invasive ventilation machines allow patients to receive breathing support via a facemask. Having these machines on the Intermediate Dependency Area means patients can access this form of ventilatory support quicker and in an appropriately monitored environment.
Nidek US-4000 echoscan £13,605	This machine will help diagnose secondary glaucoma in children with congenitally abnormal eyes.

Addenbrooke's Charitable Trust (ACT)

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