

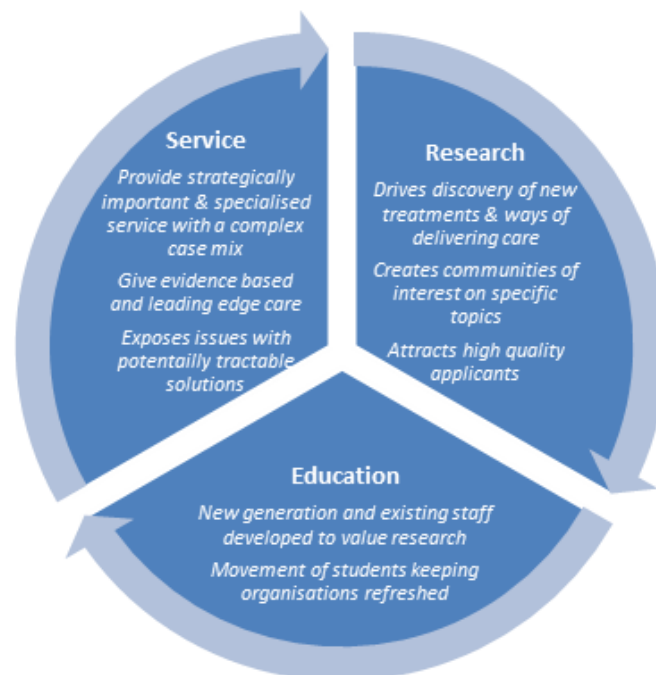
The role of the university hospital

What is a university hospital?

University hospitals in the UK¹ are NHS Trusts and NHS Boards with major teaching and research interests. They act as system leaders in the NHS tripartite mission of research, teaching and clinical service and are characterised by:

- major involvement in Research and Development;
- having significant external funding on site e.g. NIHR and Medical Research Council investment;
- a major academic presence on site e.g. hosting a number of Professorial Chairs;
- commitment to undergraduate and postgraduate teaching of health professionals;
- close links with universities and other educational institutions, with formal partnerships that cover research and/or education with one or more universities;
- university staff as non-Executive Directors of the Board.

By delivering specialised clinical services that map on to academic interest and clinical expertise, university hospitals can do more for patients and provide leadership in the NHS. The intensity of this research, education and service activity forms a virtuous circle, described in the diagram below.



¹ In this statement 'university hospital' refers to those NHS Trusts that meet the membership criteria of the Association of UK University Hospitals

University hospitals and the wider NHS

Nearly a quarter of the acute Trusts in England² are AUKUH members. One of the six Trusts in Northern Ireland³ is an AUKUH member and two of seven Local Health Boards in Wales are members⁴. To a large extent university hospitals work under a regulatory framework that is shared with other NHS providers.

Like the rest of the NHS, their role is defined by the best interest of patients and the population served. They work in partnership with other health and social care organisations for shared local populations. However, the population that university hospitals serve is wider due to the types of specialist care they provide.

Specialist centres in particular serve a regional and in some cases worldwide population as centres of excellence, in addition to their local communities.

University hospitals act as leaders rather than followers in the tripartite mission of service, education and research. The intensity and complexity of university hospital activity gives them responsibility to act as 'hubs' for the wider health system.

The geography of the UK means that collaboration in some areas of research and specialised service delivery can raise the UK's global standing. University hospitals have an added responsibility to work together where appropriate to 'power up' underperformance in aspects of the tripartite mission. Working with other health and social care providers through existing and emerging regional forums they are able to spread knowledge. For example, they lead in structures such as Academic Health Science Centres and Academic Health Science Networks (see box 1). When necessary, they are able to take a leadership role in a local health economy because of having greater capacity, skills and knowledge in particular areas. They are able to offer development opportunities for staff from neighbouring institutions and their research leadership frequently involves working with staff and patients in neighbouring Trusts, for example in multi-centre clinical trials.

Box 1: Academic-NHS partnerships: the differences and the similarity

Academic Health Science Networks (AHSNs)

"An AHSN provides a systematic delivery mechanism for the local NHS, universities, public health and social care to work with industry to transform the identification, adoption and spread of proven innovations and best practice. It is a partnership organisation in which the partners are committed to working together to improve the quality and productivity of health care resulting in better patient outcomes and population health"

Academic Health Science Centres (AHSCs)

"AHSCs have related functions to AHSNs but are of smaller scale (in terms of geography and organisations) and they focus on earlier stages in the translation. They were established primarily on the basis of internationally recognised excellence in experimental medicine and strong collaboration between academia and healthcare to enable translation into patient benefit."

University Hospitals

University hospitals can be members of both AHSCs and AHSNs. In terms of geography and organisations involved, they are at a smaller scale than AHSCs.

Joint mission

AHSCs, AHSNs and university hospitals have different but complementary functions. They are united in their recognition that aligning the NHS and academia benefits the nation's health and wealth.

² NHS Choices (2012) 'Authorities and Trusts' <http://www.nhs.uk/ServiceDirectories/Pages/AcuteTrustListing.aspx>

³ HSC (2012) 'Health and Social Care Trusts' <http://www.n-i.nhs.uk/index.php?link=trusts>

⁴ 'Health in Wales: Structure' <http://www.wales.nhs.uk/nhswalesaboutus/structure>

What makes university hospitals unique?

A commitment to education and training

Developing new healthcare professionals

University hospitals make a major contribution to the workforce of the future and have a leading role in undergraduate and postgraduate education. These education focused organisations are attractive to patients who feel that staff will have a greater knowledge base because of the teaching that they undertake. In addition, the best research leads to the best training of the next generation of research active staff.

- They provide a significant number of placements for healthcare students.
- AUKUH Trusts encompass all Trusts that are the primary host for the UK's medical schools. In addition, they provide significant training for nurses and allied health professionals.
- Clinical Academics with honorary NHS contracts are most likely to be found in research-intensive Trusts. Clinical Academics are health professionals who not only treat patients, but are also responsible for educating healthcare students and for carrying out research into all aspects of health and disease. They are vital to educating the health professionals of the future and to providing care at the highest of levels.
- The breadth of education provision is greater than in non-university hospitals as education and learning is intrinsic to AUKUH Trusts.

Developing the existing NHS workforce

AUKUH members employ approximately 327, 624 staff⁵. Educational links provide university hospitals with opportunities to develop their existing staff as well as those in training.

- Data consistently demonstrate that AUKUH Trusts outperform other Trusts in terms of staff experience.
- A university hospital will attract a higher number of high quality applicants for clinical vacancies, particularly from those with academic aspirations.
- Working in a research rich, education focused environment challenges staff to keep themselves updated to enable them to teach and respond to questions from students.
- University hospitals develop and encourage clinical and research leadership. Many members of staff sit on national and/or international research, advisory and educational bodies.
- University hospitals have been leaders in developing new roles, for example the Physician Associate role

⁵ 'NHS Staff 2001 - 2011 Overview'

<http://www.ic.nhs.uk/statistics-and-data-collections/workforce/nhs-staff-numbers/nhs-staff-2001--2011-overview>

'StatsWales' <http://statswales.wales.gov.uk/index.htm>

'Northern Ireland Health and Social Care Workforce Census, 31 March 2012',

http://www.dhsspsni.gov.uk/workforce_census_march_2012_-_web.pdf

Major involvement in research and development

University hospitals have the ability and responsibility to create and apply scientific breakthroughs.

- They have explicit and actively-managed research strategies approved by the Board, including a clear commitment to translational research and research partnerships with Industry. For many of these Trusts, this leads to a set of performance measures for research included in the normal performance report for the Trust Board.
- They work to ensure the active involvement of the whole organisation in research, including general managers.
- **In 2011/12 40 AUKUH members recruited 231,966 patients to 6, 993 clinical trials.** The average baseline patient recruitment for an AUKUH Trust was 5, 799, the national average was 1,463.⁶
- The National Institute for Health Research gives Research Capability Funding to research-active NHS organisations. **Despite accounting for 17% of those NHS institutions awarded Research Capability Funding, AUKUH members received 72% of the total funding allocated.**⁷
- **As centres for research excellence, university hospitals are involved in and host a number of key research partnerships:**
 - 12 of the 15 Local Clinical Research Networks are hosted by AUKUH Trusts⁸
 - All but two Biomedical Research Centres and Biomedical Research Units have an AUKUH Trust as their NHS partner⁹
 - 5 of the 9 lead NHS organisations in Collaborations for Leadership in Applied Health Research and Care are AUKUH Trusts¹⁰

A selection of university hospital research impacts can be found at the end of the document.

⁶ NIHR (2012) 'How is your Trust performing on research?'

http://www.cmcc.nihr.ac.uk/health+professionals/research_performance

⁷ NIHR (2012) Research Capability Funding

http://www.nihr.ac.uk/infrastructure/Pages/research_capability_funding.aspx

⁸ NIHR (2013) 'New local hosts announced for NIHR Clinical Research Network',

http://www.cmcc.nihr.ac.uk/news/news_archive/new_local_hosts_announced_for_nihr_c+linical_research_network

⁹ NIHR (2013) 'Biomedical Research Centres'

http://www.nihr.ac.uk/infrastructure/Pages/infrastructure_biomedical_research_centres.aspx

¹⁰ NIHR (2013) 'CLAHRCs'

<http://www.nihr.ac.uk/infrastructure/Pages/CLAHRCs.aspx>

Specialist care

Clinical practice at university hospitals is at the leading edge of science because of the research engaged and education focused staff who deliver care. Delivering cutting edge, evidenced based care gives patients the best clinical outcomes.

- University hospitals are more likely to encounter severe and unusual cases.
 - **19 of the 22 major Trauma centres in England involve AUKUH members¹¹**
 - University hospitals have the ability to co-locate a wide range of scarce, very specialist equipment and expertise required to provide the very highest standards of care to patients that have rare and complex conditions
 - There is a strong link between the ability to provide specialist care, offer very specialist training, and to perform research.
 - Being a university hospital attracts high calibre staff, consultants, nurse specialist who are experts in their field and this means that patients are referred for surgery when they would not be operated on elsewhere because of co-morbidities and risk
- University hospitals in England had an average of 126, 704 Finished Consultant Episodes in 2011 compared to non-AUKUH Trusts with an average of 27, 636¹².
- **59% of NHS England Specialised Commissioning allocations (£6,941,207,845) went to 41 AUKUH member Trusts in England.** This shows their strategic importance in delivering specialist services.

¹¹DH (2012) 'New major trauma centres to save up to 600 lives every year'

<http://mediacentre.dh.gov.uk/2012/04/02/new-major-trauma-centres-to-save-up-to-600-lives-every-year/>

¹² HES Online (2012) 'Provider Level Analysis'

<http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=1453>

University Hospital Research Impacts

Listed below are just some of the ways that university hospitals are using research to improve patient care across the UK.

Derby Hospitals NHS Foundation Trust

The Pulvertaft Hand Unit has been, and continues to be, involved in studies into the use of collagenase for Dupuytren's Disease from the pre-licence stage. The treatment has now been incorporated into clinical practice, reducing the number of fasciectomy procedures carried out. Collagenase treatment has the advantages of much reduced recovery times for the patients as well as a cost saving for the NHS.

The Leeds Teaching Hospitals NHS Trust

The Experimental Cancer Medicine Centre and Cancer Research UK Centre in Leeds have successfully secured the bid to take part and be a Clinical Hub in the Cancer Research UK Stratified Medicine Programme. This is an internationally unique programme setting the blueprint that will ultimately help establish a world-class NHS routine genetic testing service in the UK, initially for cancer patients and then expand to other diseases. It is funded by Cancer Research UK together with Astra Zeneca, Pfizer and the UK government and in its first phase (2011-2013), 9,000 tumour and blood samples will be collected and analysed for about 20 molecular markers across 6 clinical hub and 3 technology hubs, located in Cancer Research UK Centres across the country and the programme is led by Professor Andy Hanby (Consultant Breast Pathologist) and Professor Roz Bank (Professor of Biomedical Proteomics).

Nottingham University Hospital NHS Trust

The Nottingham Biomedical Research Unit in Hearing has worked with several research partners (including the University of Nottingham's School of Clinical Sciences Biomaterials-related Infection Group and its School of Pharmacy) to develop a revolutionary controlled-release antibiotic pellet, which can be implanted in the middle ear during surgery to fit grommets. The pellets slowly release antibiotics reducing the risk of infection and repeat grommet operations. By reducing infections and the need for reoperation this could greatly improve the lives of thousands of children who have glue ear and save significant costs to the NHS. The research team responsible for developing the biodegradable pellet won the ENTEX short papers prize, as well as prizes at the ENT UK annual meeting and Otorhinolaryngologic Research Society Meeting.

University Hospital Southampton NHS Foundation Trust

Eye experts based at Southampton's teaching hospitals are effectively treating a rare genetic condition in children, and believe it could halt loss of sight in later life. Professor Andrew Lotery, Consultant Ophthalmologist at Southampton General Hospital's eye unit, and his team are using glaucoma eye drops to tackle X-linked retinoschisis, a form of macular disease which causes progressive loss of central vision and was previously untreatable. Exclusively present in males, it is diagnosed in early childhood and gradually impairs vision until adulthood. The condition leads to splits in the retina and can also cause irreparable damage to vision through burst blood vessels. The team's findings show improvements in the appearance of patients' retinas and a decrease in fluid build-up. It is hoped that the developments will lead to long-term benefit by repairing the shape of the eye and preventing further decline in vision.