



# TRANSLATE

Spring 2010

In this issue of King's Health Partners' Quarterly Magazine

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# Global health It's not just malaria

King's Health Partners Academic Health Sciences Centre (AHSC) is a pioneering collaboration between King's College London and Guy's and St Thomas', King's College Hospital and South London and Maudsley NHS Foundation Trusts.

We are one of only five accredited AHSCs in the UK and are combining the best of basic and translational research, clinical excellence, and world-class teaching to deliver groundbreaking advances in physical and mental healthcare.

**Translate** is a quarterly publication that features innovation and items of exceptional interest currently taking place within our four partner organisations and across King's Health Partners.

The name **Translate** reflects our purpose as an Academic Health Sciences Centre – to translate research rapidly into improved patient care.

For more information, visit [www.kingshealthpartners.org](http://www.kingshealthpartners.org)

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Design and print: Further

## OPINION Lord Butler Chair



Having joined King's Health Partners just a short time ago as Chair, I have observed a strong determination across all the partners and a shared aspiration to make the organisation the leading Academic Health Sciences Centre in the UK.

The commitment and vision are not surprising. Between us we have all the components for success – a university, and hospitals with some of the greatest research and teaching records in the world and a diverse patient population presenting both opportunity and need for applying advances in healthcare.

King's Health Partners is also particularly well placed to focus on the benefits of bringing together physical and mental healthcare, coupled with a commitment to focus on preventive as well as restorative treatment.

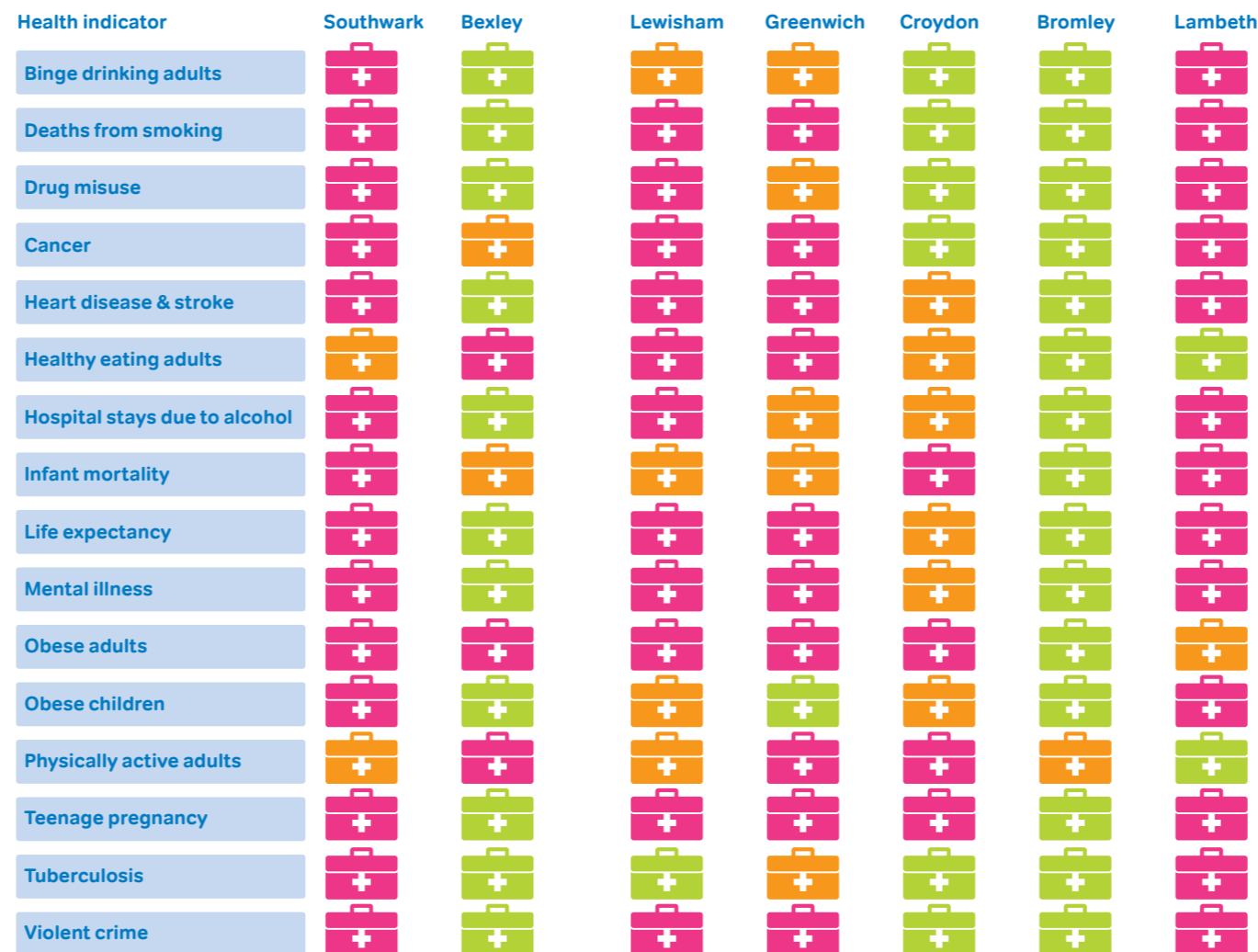
This is not to say that the realisation of our vision will be easy. It is one thing to see that great and historic institutions can be stronger together than separately; it is another to create the arrangements which fully respect and exploit their different obligations and traditions. The partners will have to proceed incrementally, but at a speed that will allow us to maintain momentum and ensure that confidence isn't lost.

All this will be at a time of serious pressure on resources. The silver lining is that times like these make people willing to contemplate rationalisation which years of plenty allow them to ignore.

The prospect is one of huge challenge but also huge opportunity. I am delighted to have joined an organisation that is clearly up for the challenge and has the leadership team to see it through.

Lord Butler

### HEALTH IN SOUTH EAST LONDON



Worse than London average  
 In line with London average  
 Better than London average

## UP CLOSE Shifting the focus – Health in our community

### From affluent Dulwich Village to impoverished Camberwell, two miles away, life expectancy drops by ten years. You couldn't find a starker illustration of health inequalities.

In seven south east London boroughs, King's Health Partners serves a community of two million, one of the UK's most diverse in terms of ethnicity, education, wealth – and ultimately health.

Across the most acute health indicators – including deaths from smoking, early onset Type 2 diabetes and teenage pregnancy – four and sometimes five of these seven boroughs fare worse than the London average. It makes health inequalities a compelling field for King's Health Partners, chosen with four other Academic Health Sciences Centres (AHSCs) to lead on the issue.

"In our mission statement we chose to identify what I call the 'new public health' as a priority and that will address local health inequalities," explains Professor Robert Lechler, Executive Director of King's Health Partners.

This is an opportunity to apply cutting edge academic thinking – stratifying risk in healthy populations by including gene profiling, for instance – to change the current system of indiscriminate healthcare.

King's Health Partners is pushing an ambitious vision: preventive, integrated healthcare, delivered to every patient. Naturally, this cannot happen without education and training aimed at patients and the King's Health Partners workforce. "We have to empower patients," says Professor Anne Greenough, Director for Education and Training at King's Health Partners.

"They have to know more about their illness and about ill-health prevention."

Beyond providing accessible outpatient leaflets and websites, the key issue is how to motivate patients to use these resources. Can you address patients in their first language (often not English)? Can you reach patients closer to home? If the average person spends ten times longer in their high street pharmacy than with their GP, health education resources need to be presented here, by a pharmacist who is trained to communicate to use such resources with their service users.

"The Education Academy is about learning from the very best in each of the partners and sharing that expertise," explains Professor Greenough.

The same applies to research; it needs to be translational, sharing research findings with clinical practice:

"We want to be greater than the sum of our parts," says Professor Frank Walsh, Director for Research at King's Health Partners.

"Research scientists and our clinical colleagues gain critical mass by coming together."

Health inequalities can spring from missed opportunities and more investment in IT is essential, argues Professor Walsh. A GP linked to a hospital leading on clinical trials can refer more patients, improving their treatment and prognosis.

If integration sounds like a common-sense manifesto, nobody should underestimate the scale of King's Health Partners' ambition. Historically, our healthcare is parcelled-up: primary, secondary and tertiary. And each parcel works towards its own budget and targets. What is needed is a cultural shift towards a joined-up approach with every individual working together to achieve the best, most efficient care along the entire patient pathway. How does one integrate the multitude of healthcare branches and professionals? Professor John Moxham, Director for Clinical Strategy at King's Health Partners, believes that shared performance indicators provide an answer.

"In healthcare systems around the world where people have achieved integration along the pathway, the health of the community has greatly improved and health inequalities have narrowed," says Professor Moxham, citing US Veterans Affairs healthcare as a model of improved care that has also saved millions from its budget.

This is an ambition worth pursuing, and King's Health Partners aims to have an impact within five to eight years – both locally and globally. "The immediate driver is the needs of the local population," says Professor Lechler. "But we are a world leader. We hope to make discoveries that have a global impact and to present an approach that the rest of the world can follow."

Emma Pomfret

Source: Department of Health Community Health Profiles 2009



**Every Friday, 30 newly qualified doctors in Somaliland sit in front of their computers and are taught by some of the best clinical minds in London – one week a surgeon, one week a mental health specialist, another a physician.**

The young African medics have already uploaded their clinical cases, so the teachers offer interactive, 'hands-on' practical tuition over the world wide web. Earlier in the week, the same doctors have spent time on the internet with King's medical students, passing on expert knowledge from their homeland. This is global health in action.

For the last ten years, the former British protectorate of Somaliland, has been involved in a pioneering partnership with King's College Hospital, part of King's Health Partners, and the charity THET (the Tropical Health and Education Trust.) In the UK it is headed by consultant surgeon Andy Leather, who founded the King's International Development Unit.

This is a clear example of why global health is so significant: not only can it improve the capacity and quality of healthcare in low income countries, it can provide UK doctors, nurses

and dentists with vital skills and experience which, due to increased travel and migration, they increasingly need in the NHS.

However this emerging discipline means different things to different people, which is one of its challenges. King's College London medical student Oliver Johnson, works with Mr Leather through the student group Medsin, promoting teaching on the subject. He recalls a typical, uninformed, comment from a student: "Global health – that's just malaria, isn't it?"

In the past, international health tended to concentrate on infectious diseases and maternal and infant mortality. But the last decade has seen some significant changes. Firstly, there has been an increased acknowledgement that some issues – climate change, economic meltdown, chronic diseases – are truly global, and need international collaboration to be properly addressed.

Secondly, increased worldwide travel and migration means that global health is becoming more directly relevant to clinicians. Oliver says:

**"We're not only dealing more frequently with diseases that were historically rare, but also with new language, cultural and legal barriers. This isn't just in London – any community where people are**

**coming back from holiday or visiting family needs to learn to deal with the 'weird and the wonderful'. It'll be a big issue."**

In the next 50 years – the career span of today's medical students – movement will only increase, and student training is adapting accordingly. A new BSc in Global Health begins at King's College London in September, two special study components in the medical undergraduate course for those who want to work overseas have been introduced and extra teaching on global health is now in the core curriculum.

Thirdly, politicians now realise it is important to look at the health of the world's poor. Andy Leathers says:

**"Senior politicians are waking up to the fact that global health is important. It is almost a stabilising thing – if poor countries have healthier populations they are more likely to prosper. That is in all our interests."**

The project in Somaliland began in 2000 with a simple link between King's College Hospital and a maternity hospital there, but it quickly mushroomed, with a team helping build two medical schools and five nursing schools, training 36 new doctors, 27 new nurse tutors and other allied health professionals, developing medical and nursing

associations, healthcare regulators, and gaining access to better quality drugs.

One of the many difficulties is that healthcare is overwhelmingly private in Somaliland, and the poor still have to pay for public assistance. The latest pilot provides health services in rural areas for free. The Department for International Development (DFID) offers salary support to ensure recently graduated health professionals stay in the public sector.

Those from the UK who have visited the region have learnt 'huge amounts', and will go on to benefit the NHS, Andy Leather says;

**"If you want a fast track to leadership development, send a health professional, be it a nurse, a doctor or a pharmacist, to a country like Somaliland; you begin to think more laterally away from the tunnel vision of Western medicine, you mix with some inspiring people trying to solve problems against all the odds. You begin to think how healthcare could be delivered differently. In the developed world, we are perhaps too dependent on doctors, and a lot of healthcare in low income countries is delivered by clinical officers or nurses – could we do it differently? For certain specialities, such as obstetrics, paediatrics and palliative care,**



1 'Patient Waiting' by Hussain Basheer from the 2009 King's College London Medical Electives Photography Competition

2 'Surrounded' by Na'eem Ahmed from the 2009 King's College London Medical Electives Photography Competition

3 Doctors in action in Somaliland

**there's very good clinical experience to be gained."**

As the first ten years of the project draws to a close, the expertise of academics and clinicians within King's Health Partners are being used in Somaliland and the UK, and global health is firmly further up the agenda in healthcare training.

So what does the second decade hold? Work in other post-conflict countries? Strengthen the research dimension to the capacity building work? Provide core training in global health across all the health schools? Focus on non-communicable diseases? Mr Leather says:

**"All of these and more: and the great news is that a focus on global health at King's Health Partners means this will be possible."**

The Somaliland partnership with THET is just one of King's Health Partners global health activities and projects. King's Health Partners is also carrying out activities in the following areas:

- International Dental & Oral Health
- International Palliative Care (Cicely Saunders Institute)
- International Oncology

- International Health Development – a health development programme between Guy's and St Thomas' NHS Foundation Trust and Zambia

- International Mental Health (including the Centre for Global Mental Health collaboration with the London School of Hygiene & Tropical Medicine)

Jacqui Thornton

**PARTNERSHIP IN SOMALILAND**



**New partnership strengthens work in Somaliland**

Following the ten year collaboration through the King's THET Somaliland Partnership, King's Health Partners has renewed a partnership with the Tropical Health and Education Trust (THET), in February this year.

This renewed partnership will look to expand delivery of the 'Health Systems Strengthening' work (potentially beyond Somaliland), as well as to promote greater involvement of younger members of the health profession by creating further opportunities to be engaged in and learn about Global Health. This will enable us to take further steps to develop our shared agenda, creating a centre of activity at King's Health Partners.

Find out more at: [www.kingshealthpartners.org](http://www.kingshealthpartners.org)



# Closing the gap between physical and mental health

**Ten years ago while studying for a masters in epidemiology and a trainee (junior) research psychiatrist at the Institute of Psychiatry, Khalida Ismail was sitting in on a routine diabetes clinic as part of a research project, when she did something very unusual. She offered to counsel a patient who was crying and clearly depressed.**

"The doctor, one of the leading Diabetologists at the time, was doing a superb job with her diabetes," she says "but he just did not know what to do with her crying. Afterwards he explained he didn't want to "open a can of worms" as he put it. He didn't feel he had the psychological skills to deal with her on an emotional level."

Ismail's simple act involved stepping across a chasm that runs through medicine; the gap between the mind and the body. The rule, still widely observed, is that doctors deal with disorders of the body while psychiatrists and psychologists heal the mind. Ismail is now a Clinical Reader and Consultant Liaison Psychiatrist at the Institute of Psychiatry, part of a team at King's Health Partners that is aiming to abolish that gap at a clinical level.

"There are very obvious links between diabetes and psychiatric disorders," she says. "About 10% of people with diabetes have depression and many suffer from anxiety. We found that if you are depressed and have diabetes, and then have a foot ulcer, your risk of dying in the next 18 months goes up three times. We're now trying to find out why and what to do about it."

The project doesn't just involve diabetes.

"Many patients with serious chronic diseases develop psychological problems, which are all too often ignored as medicine becomes increasingly biomedical," says Matthew Hotopf, Professor of

General Hospital Psychiatry, Institute of Psychiatry, King's Health Partners.

"We are developing a strategic rather than a piecemeal approach to make psychiatric support available to all patients with chronic disorders. It is part of a wider King's Health Partners objective to improve the care of the whole person."

Few conditions are as strongly and consistently associated with poor quality of life as depression. Its impact has been compared to that of arthritis or angina and yet it is often overlooked when it is part of a more obvious physical disease. The challenge is to find the best way to treat it, as different conditions don't always respond in the same way.

For instance, cognitive behavioural therapy (CBT) has been shown to be effective in treating out-patients with breast cancer and depression, but does it work for the 15% of advanced cancer patients in palliative care with depression?

A study published last year involved teaching the clinical nurse specialists who normally care for these patients how to use CBT and then comparing it with the usual treatment. It turned out that the CBT didn't help with depression, although it was effective in reducing anxiety – 19% still had it in the treated group compared to 51% in those getting usual care.

"Teaching the nurses illustrates an important aspect of our approach," explains Hotopf, who was one of the authors of the study. "We are not engaged in a work creation scheme for psychiatrists and psychologists here. One of the things we want to do is to empower people at the clinical coalface to deal with their patients more effectively."

The project also meshes with another of the King's Health Partners guiding principles which is to translate research into clinical practice as fast as possible and then to monitor it to ensure that it is having a benefit.

The area where this is happening fastest is in Ismail's work in collaboration with King's Health

Partners' two acute Trusts – Guy's and St Thomas' and King's College Hospitals – with people who have diabetes and depression.

This is already revealing unexpected ways in which the two conditions are linked.

Some years ago researchers used to think that the connection was simply the result of the 'burden' of disease – the sheer strain of being ill. Then the picture became more complicated, Ismail showed that diabetics with depression die sooner. But why?

"Originally we thought this was because reducing their depression meant that they became more careful about keeping their blood sugar under control," says Ismail.

But then studies discovered that blood sugar control in diabetics successfully treated for depression didn't improve. Something else was going on.

"One idea is that depression increases inflammation which raises the risk of heart disease," Ismail explains.

So she is now running a trial with Professor John Pickup at Guy's and St Thomas', to see if various inflammatory markers are raised in those who are depressed, as compared to those who aren't.

"If they are, we'll then run a trial to see if lowering inflammation has a preventative effect."

The diabetes research involves both the acute and mental health hospitals within King's Health Partners.

"It's been really valuable for both sides," says Ismail. "I've learnt about the physiology of diabetes and they've learnt to deliver CBT and have become much more confident about discussing psychological issues with their patients."

There is no doubt that some clinicians still poo-poo this melding of physical and psychological approaches.

"They find it all a bit too wishy-washy, without enough hard science to back up the psychiatry,"

**"There are very obvious links between diabetes and psychiatric disorders. About 10% of people with diabetes have depression"**

Dr Khalida Ismail

says Hotopf. "It is a criticism we need to address but we are already generating robust evidence for its effectiveness."

And already some doctors are being converted.

"I worked with one doctor who was initially very dismissive – faced with any psychological issues she'd just say 'that's yours'.

But recently I discovered that the same doctor now includes a depression assessment with each new diabetic patient diagnosed."

Another of the King's Health Partners principles is that treatments should be regularly monitored to check that they are effective, and that means getting patient feedback.

"It is not yet as good as we would like," says Hotopf. "That will happen once we have a proper computer infrastructure up and running.

The idea is that patients will be able to use touch screens in the clinics about the effect of the treatment and how it has changed their quality of life. This information will then generate alerts if there are difficulties."

For now, King's Health Partners is acting as a test bed to try and abolish the mind body divide. The vision is that one day all chronic disorders will be treated in this integrated way. ■

Jerome Burne

## NEWS IN BRIEF

### A IoP study in top medical breakthroughs of 2009

A study into Alzheimer's disease involving staff from the Institute of Psychiatry has been voted one of the top ten medical breakthroughs of 2009 by Time Magazine.

### B Web update

The King's Health Partners websites have just been re-vamped to make navigation easier, updated information and provide new features such as forums and

the function to comment on articles and content, visit: [www.kingshealthpartners.org](http://www.kingshealthpartners.org)



## WHAT'S NEW News articles

### Leukaemia vaccine being developed

>> Scientists at King's College London are developing a vaccine for Leukaemia that can be used to stop the disease returning after chemotherapy or bone marrow transplant. The vaccine will be tested on patients for the first time at King's College Hospital.

The first patients to be treated as part of the clinical trial have the form of the disease known as Acute Myeloid Leukaemia (AML), the most common form in adults. Even with aggressive treatment half would usually find the disease returns.

In the initial stages of the trial patients will be enrolled if they have had chemotherapy and a bone marrow transplant.

Eventually it is hoped the drug, which activates the body's own immune system against the Leukaemia, could be used to treat other types of cancer. ■

### Creation of a ground-breaking new Cell Therapy Unit (CTU)

>> Work is to begin on the UK's first CTU at King's College Hospital following a £1.4 million grant from the NHS Institute for Health Research.

The £3 million unit is expected to open in Spring of 2011. It will pioneer new cell therapies for people living with Leukaemia, diabetes and liver failure. The unit was made possible by the grant from the NIHR with the balance being raised by private donations.

The new unit will form a crucial part of the Clinical Research Facility (CRF) being built on the King's site, at Denmark Hill, which is being funded separately by the NHS and the Wellcome Foundation. ■

### King's Health Partners successful in joint HIEC bid

>> King's Health Partners are now partner members of the South London Health and Innovation Education Cluster (HIEC), following the successful bid to the Department of Health. The collaboration is one of the new government funded networks aimed at delivering high quality patient care through better trained clinicians and faster translation and adoption of research and innovation.

The South London HIEC brings together around 30 organisations, all members of south London's two major healthcare networks who will be leading this collaboration – King's Health Partners and the South West London Academic Health and Social Care Network. This includes all south London's primary care and mental health trusts, 17 NHS hospitals, the London Ambulance Service and the local Health Protection Unit, as well as six universities, further education providers and social care teams. ■



### New home for Biomedical Research Centre opens

>> The NIHR comprehensive Biomedical Research Centre (BRC) took another important step forward at the end of last year with the opening of its physical home on the 16th floor of Guy's Tower, Guy's Hospital and a key note lecture for members of the Faculty of Translational Medicine, who are at the heart of the BRC.

The new centre, launched by Professor Dame Sally Davies, Director General of Research and Development at the Department of Health, will provide facilities and training programmes, and opportunities to interact and collaborate that will inspire its members to become leaders in translational medicine. ■

### World first heart operation using MRI performed

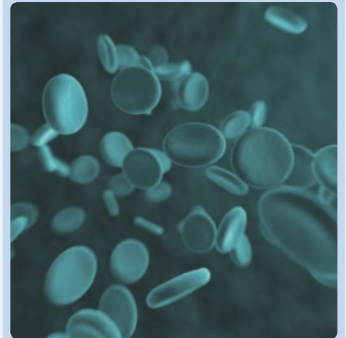
>> A new technique of performing catheterisation under the guidance of an MRI scan, meaning that patients are not exposed to radiation, was recently performed for the first time on a boy at Guy's and St Thomas' Hospital.

Six year old Jack Walborn was born with the heart condition, Pulmonary Valve Stenosis, which obstructs the outflow of blood from the right side of the heart, resulting in a reduction of blood flow to the lungs. After being monitored since birth, it was decided Jack needed an intervention called valvuloplasty to widen the valve and allow more blood to flow.

In this operation, a cardiac catheter is inserted into a blood vessel in the arm or groin and then guided through the body towards the heart. Traditionally, clinicians would use x-ray imaging to track the progress of the catheter through the body, but the new technique uses MRI rather than x-ray.

The team within King's Health Partners has been working to develop this technique which is especially important for paediatric patients who are at a higher risk of the long-term side effects of the radiation from x-rays. ■

### Alternative treatment hope for patients with rare anaemia



### A new drug for patients with a severe and rare form of anaemia associated with chronic kidney disease may be more effective than time-consuming and expensive blood transfusions, research carried out at King's College Hospital has shown.

>> The results of a clinical drug-trial carried out at King's College Hospital and reported in the New England Journal of Medicine (NEJM) support the use of a novel and highly effective treatment for pure-red cell aplasia (PRCA). PRCA is a form of anaemia in patients with chronic kidney disease which causes a sudden and severe decrease in the number of red blood cells produced by the bone marrow.

Previously, the only recognised treatment for patients with this condition was regular blood transfusions, or powerful immunosuppressive drugs which can expose the patient to an increased risk of infections.

The trial involved giving monthly injections of Hematide (an experimental erythropoiesis-stimulating agent) to 14 patients with PRCA over a two year period. All but one of the patients experienced an increase in red blood cell production, meaning blood transfusions were not needed. ■

For the latest news, visit our News and Information webpage: [www.kingshealthpartners.org/khpcategory/news/](http://www.kingshealthpartners.org/khpcategory/news/)