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RESEARCH COMMUNITY NEWS MAGAZINE

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Supporting women in early labour to improve birth outcomes

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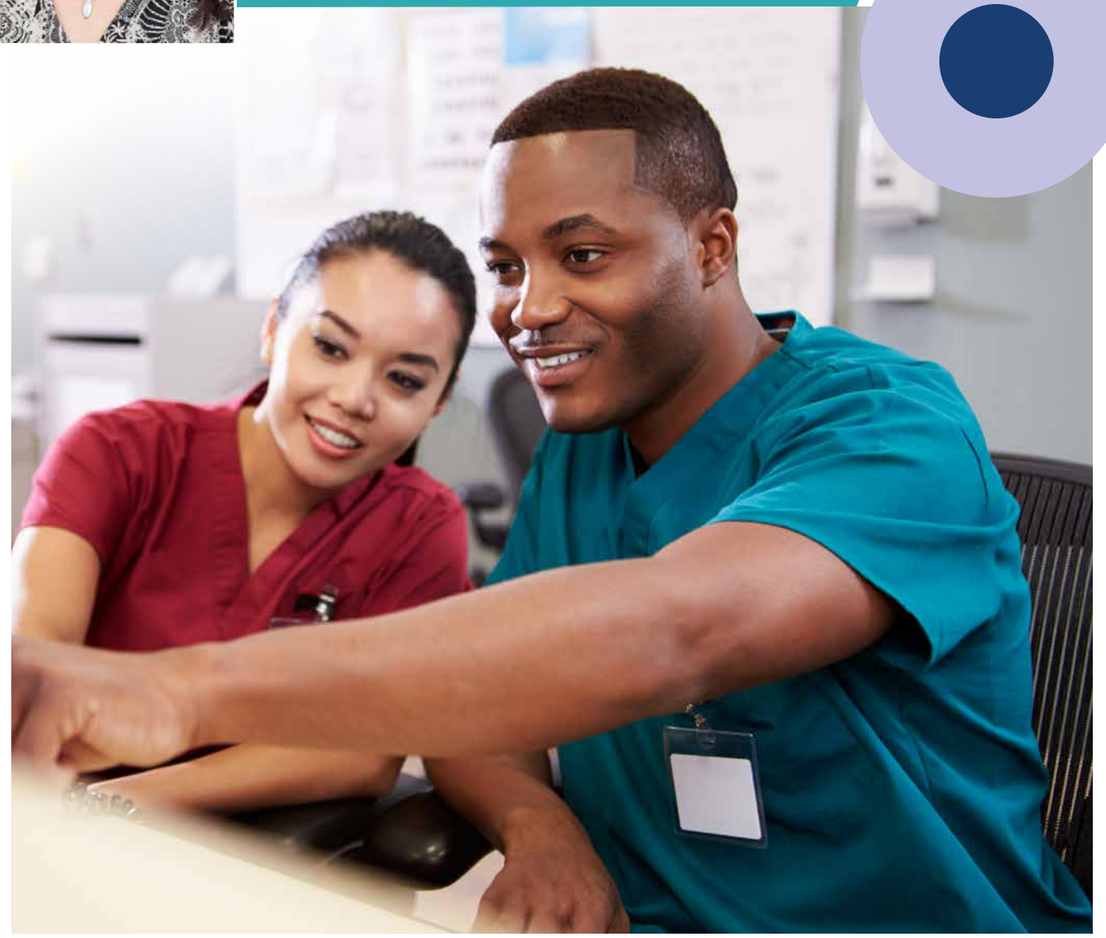
WELCOME TO VISION MAGAZINE

"I hope that the stories you read in this issue of VISION inspire you to either take part in research if you're not already doing so or encourage others to get involved where they can."

Professor Vanora Hundley
CRN Wessex Joint Specialty Lead for Reproductive Health and Childbirth



FOREWORD BY PROFESSOR

VANORA HUNDLEY

"I am passionate about supporting research from all professional groups, encouraging engagement from the very beginning of careers."

PROFESSOR VANORA HUNDLEY

Professor of Midwifery, Centre for Midwifery, Maternal & Perinatal Health, Bournemouth University, and CRN Wessex Joint Specialty Lead for Reproductive Health and Childbirth.

Health research has been changing lives for centuries and there are so many areas of research that have seen our healthcare systems, treatments and recommendations change dramatically.

However, unlike the medical profession, support for research in professions such as midwifery, physiotherapy and orthoptics is still very much in its infancy. As Joint Specialty Lead for Reproductive Health and Childbirth, I am passionate about supporting research from all professional groups, encouraging engagement from the very beginning of careers.

As you'll discover in this issue of VISION, championing the importance of research in all areas of the NHS, not just in medicine, is vital to the survival and future of the NHS and its patients. With so many talented people within our healthcare system, it's essential that we support and encourage researchers early in their careers across all disciplines and job roles.

Not only is it important to be shining the spotlight on these researchers, but their stories encourage colleagues and signpost them to opportunities to get involved in research. This has the capacity to change how professions see themselves as part of the jigsaw that is healthcare and research in the UK.

As a midwife, I fell into research. Although we studied research in my undergraduate degree, it wasn't something that I'd considered as a career because it appeared so separate from practice. However, when I moved to Aberdeen a lack of jobs meant that I applied for a research-based role which kick-started a passion for research that I didn't even know I had.

As the lead researcher on a clinical trial, I faced an uphill challenge to be the lead author on the paper, as it was traditionally medical staff that took that role. However, I was successful and the paper published in the British Medical Journal (Midwife Managed Delivery Unit: a randomised controlled comparison with consultant led care), changed how we see midwives' roles within research.

Since then I've been championing the importance of research among midwives and working hard to establish flexible routes for them to become involved. I helped to create a clinical masters at the University of Aberdeen because I saw the value in enabling midwives to continue to practice. More recently I developed the Clinical Doctorate at Bournemouth University.

This is an approach that I firmly believe has a real impact among patients and practicing healthcare professionals. You'll read first-hand from our students and colleagues, the difference that balancing research with practice is making to their work and the impact that they are having.

In Wessex, we are fortunate to have developed the Wessex Clinical Academic Doctoral Training Scheme, approved by the NIHR, which encourages professionals from all backgrounds to integrate research into their job roles. When I did my doctorate, it was something I did in the spare moments that I could find. There was no defined clinical academic route, so prioritising research was something that I had to drive for myself.

The programmes that the NIHR are supporting, like the Wessex Clinical Academic Doctorate, are helping to drive forward research without it coming at the expense of clinical practice or exhausting our already overwhelmed practitioners. Gaining a balance between research and practice is vital if we are to continue to have an impact through our work.

I hope that the stories you read in this issue of VISION inspire you to either take part in research if you're not already doing so or encourage others to get involved where they can. Research is something that we all have a part to play in and I believe that it's vital we embed it into our practice if we're to drive real change and improve the care for mothers and babies.

DR SOPHIE FLETCHER
Respiratory Consultant, University Hospital Southampton NHS Foundation Trust (UHS)

I am a respiratory consultant that loves research. It's interesting and satisfying but it's not just good for me; it's also good for my patients. It gives my patients access to drugs and treatments that they wouldn't normally have and opportunities to help shape the work that we do.

In my role as a consultant physician, this is particularly important. One of the conditions that I spend a lot of time working with is idiopathic pulmonary fibrosis (IPF). It's a chronic progressive respiratory disease and currently there are limited therapeutic options and a poor prognosis for people suffering from it.

We're unsure exactly what causes it and we don't yet have any clear treatment pathways so research helps everyone to become involved in how we learn about the causes and management of the disease.

The Idiopathic Pulmonary Fibrosis Job Exposure Study (IPF JES) aimed to investigate the role of occupational exposures and the development of IPF. It's an observational study where we're trying to understand the lifestyles and occupations of those with the disease so that we can gain a better understanding of the potential causes.

As it seems to affect far more men (80%) than women (20%), and seems clustered around locations where there are high industrial vocations, we knew that this was important data to gather as it has the potential to frame prevention as well as treatment opportunities.

Within the study I supervise clinical fellows, many of them at a very early stage in their careers, helping me to recruit patients and to do a lot of the day-to-day running of the trial – including highlighting potential recruits from the clinical service and talking to patients about what the study is and what is involved.

I couldn't have done the research without fellows. There is no defined time for research in my job role, having them alongside me is an invaluable resource and enables me to continue to take part in research alongside my clinical work whilst providing them with mentorship while they grow their skills.

The fellows that join us are funded from a variety of sources, including the NIHR Clinical Research Network, and are multinational in their background. They develop clinical expertise in this specialist area alongside in-depth and hands on research experience. They learn how to understand and interpret trials and papers and also learn about the trials' limitations and begin to see how they can fit into the clinical picture.

"We're always looking to signpost them towards opportunities to grow their experience and knowledge of research."

For some, it's their first taste of research. It can feel like a bit of a whirlwind because we're a big team and there are so many opportunities for them to get involved in research and trials, but they get a taste of everything.

They receive a lot of teaching through their roles and time with us in the respiratory team – there are regular meetings with the whole research team to discuss the progress of studies, they undertake poster presentations for presentation at international conferences and regular training for statistics. We're always looking to signpost them towards opportunities to grow their experience and knowledge of research.

Our fellows also get to be representatives on medical studies with pharmaceutical companies, which sometimes involves travelling internationally. Alongside this, we encourage them to meet with the small network of researchers for lung conditions in the UK because it grows their knowledge and gives them access to collaboration opportunities.

It's difficult for clinicians to do research, time can prohibit the opportunities. But by connecting to a network of researchers and clinical fellows, it's an excellent opportunity to get outside your comfort zone and keep the research relevant to clinical practice. It also enables the research to continue while you maintain your clinical practice.

I think this blend of clinical practice and research is really important. The balance of the two is key to continuing to make an impact and have support while doing so. Creating pathways where this balance can be achieved for clinicians is essential and offering these opportunities to clinicians needs to become easier if we're to reap the benefits.

The IPF JES results are currently being collated and analysed, with the results to be published later this year. We're hoping that this collaborative approach to the study will give us a greater understanding of the disease that will lead us to more advanced treatment pathways. The team at UHS was the top recruiter nationally to this study – thanks to the fellows.

"They develop clinical expertise in this specialist area alongside in-depth and hands on research experience."

DEVELOPING A PATH IN RESEARCH

DANIEL OSBORNE
Research Orthoptist, University Hospital Southampton NHS Foundation Trust

Orthoptists are rare in the UK, in fact there are just 1,400 of us. A research orthoptist is even rarer, which makes my position somewhat unique.

I'd been at University Hospital Southampton as an orthoptist for 18 months when a new role was created as a research orthoptist. I'd had some exposure to research during my degree and really enjoyed it, so decided to apply. The role would allow me to spend 50% of my time researching and 50% still doing clinical practice, which to me sounded like the best of both worlds.

After getting the job, my first taste of research was being involved in a project investigating the eye condition, nystagmus, in children – a rare condition that causes the eyes to make repetitive, uncontrolled movements. Over ten years, the study has looked at around 670 children assessing all sorts of aspects of their eye health, in order to help us understand the condition.

"Being involved with the study taught me a lot about how to connect and talk to patients."

My role was focused on looking at the eyes' movement, using tracking equipment and recording the patterns. The study was a great introduction to research and working in amongst a big team of researchers from the university and the hospital in Southampton.

As there is currently no cure for nystagmus, and we don't know what causes it, being involved with the study taught me a lot about how to connect and talk to patients. It's opened me up as a clinician to being vulnerable and open with my patients, getting them to understand that sometimes we don't have all the answers and we need their help to find them. In this situation, it can also help patients to feel a little more in control of their conditions, they have a say in their treatment options and can make more decisions.

I've recently been awarded an Health Education England and NIHR Pre-doctoral Clinical Academic Fellowship which provides research training awards for healthcare professionals looking to develop careers combining clinical research and research leadership, with continued clinical practice and professional development.

I applied back in 2018, but didn't get awarded the first time round. In 2019 I got the award, the first orthoptist to do so, and this enables my role to continue to be funded with a split function between research and clinical practice – something that's really important to me.

I have begun developing my own study that looks at the treatment of children with lazy eye. Traditionally, we give children an eye patch to wear up to six hours a day and then see them in clinic every six weeks to test their eyes and check their progress.

The way we assess children and treat them hasn't really changed since Victorian times, so my study looks at how we can bring assessment and treatment into the 21st century. By using technology like iPads to get parents and children to test and monitor progress at home, I'm hoping to reduce the frequency of clinic visits but also to encourage them to make consistent progress.

"Getting involved in research has unlocked a keenness in me to challenge and change things, wherever I can see potential for improvement."

Wearing the eye patch can present a challenge for children – other children can say cruel things which can then make them reluctant to wear it and hinder their progress, making their treatment times longer than they need to be. It also becomes a nuisance having to wear it for large parts of the day.

I'm still in the development stage of the project but it has been a positive experience of collaboration. I'm working with a team in Cambridge and the charity Fight Against Blindness has donated iPads for us to use during the trial. I've also been experiencing the processes of building a study from the ground up - gaining funding, learning about research practice and ethics, recruitment and controls and then analysing and publishing the results.

Getting involved in research has unlocked a keenness in me to challenge and change things, wherever I can see potential for improvement. During a recent internal audit as a department, we saw that 15-20% of children who have been referred to see us don't attend their clinic appointment, so I'm looking for ways to reduce that. There can be a fear for children around the administering of eye drops at the clinic, so I want to explore whether changing our approach could have an impact on the number of missed appointments.

I would say to anyone who is early in their career, to consider research as part of it. I continue to suffer from imposter syndrome, where I think that I perhaps don't know as much as others, so shouldn't be getting involved in research. But I've discovered it's been a fantastic way to collaborate with other people, make fantastic connections and that the people who you're probably afraid of approaching are grateful to have your help. Just go for it.

BECOMING A **PHYSIOTHERAPY RESEARCHER**

"By saying yes to getting involved in research, I've discovered opportunities to grow in my career that I never knew were possible."

BY KATHARINE WILCOCKS
Advanced Clinical Practitioner Physiotherapist in Orthopaedics, Salisbury NHS Foundation Trust

Research definitely wasn't on my radar when I became a physiotherapist. It was only once I was working at Salisbury District Hospital that I had my first taste of research.

Mr Jacobs had recently joined the team as our new foot and ankle surgeon. He knew of a multi-centre trial being set up and suggested being involved. The trial looked at the benefits of a removable boot against a plaster cast, post-ankle fracture surgery.

The trial required physiotherapist input and I was interested to get involved, so I said yes and was thrown in at the deep end on my journey into research. With the help of the research department, we set up the trial which I then worked on with my research assistant. It was a real learning curve, getting to grips with trial protocol, standard operating procedures, GCP training, research procedures and paperwork. It took some getting used to, but after a while myself and my research assistant began to work together well. Other consultants were aware of what we were doing and before we knew it, we were being asked to be involved in further studies.

This initial trial gave me a real insight into research and the difference it can make, not only to our roles, but to our patients' lives too. It prompted a review of our own protocols and the way we treated some ankle injuries. We recruited 23 patients to this trial and hopefully helped the trial centre collect enough data to draw some meaningful conclusions.

Being a physiotherapist researcher is becoming more common but wasn't something that I had known much about; by saying yes to getting involved in research, I've discovered opportunities to grow in my career that I never knew were possible. It's greatly improved my clinical knowledge and my communication with other departments, patients and consultants. I have joined the Associate Principal Investigator (PI) Scheme run by the NIHR Clinical Research Network in conjunction with Profher2, which will help me to gain more experience in the leadership of trials and create a clearer pathway for other people like me, who want to get involved in research.

"This initial trial gave me a real insight into research and the difference it can make."

Profher2, run by York Trials Unit, is a multi-centre three-armed randomised control trial looking at the effectiveness of our current treatments for proximal humerus fractures. I attended a day conference looking at the setup of the trial. It has been really interesting to be involved from such an early stage. At the time of setting up the trial, I was the main orthopaedic link with the research department so was quite involved.

I am overseen by a PI who assesses my work against a series of competencies which will be signed off once I've reached them. This will allow me to grow my experience and role within running trials and helps me to drive Salisbury District Hospital towards becoming a research centre in its own right. We're doing some fantastic research, and I hope that my involvement in the scheme will enable our reputation to grow. I am also hopeful that we will be able to start looking at therapy-based trials for which I can be or support another therapist to be the PI.

Alongside growing our reputation for research, it's also changing the way we practice. Having a solid evidence base to support why we do things can change patient outcomes, help aid recovery times, save on resources and staff time. I think it's vital now that we begin to see the power of research realised by people higher up in the NHS so that we can ensure it's better funded and given more dedicated time.

Initially, I didn't have any defined time in my role for research but with the development of my role, I have been able to include research within my job description and I now have another physiotherapist involved in helping to manage the trials. We have to work flexibly across clinics and consultants depending on the trials. It's great that the consultants are now looking out for, and suggesting, trials that we can be involved in.

It makes it challenging, but I am determined and passionate that research has the capacity to change and impact so much within the NHS. I see it as an essential part of my role and other Allied Health Professionals. Now, when I recruit physiotherapists into the orthopaedic team, or I am reviewing job descriptions, I ensure that research is mentioned in their job specification because it's something I want to see grow.

NURTURING FUTURE RESEARCH LEADERS

DR KRISTIN VEIGHEY
Clinical Research Physician,
University Hospital Southampton
NHS Foundation Trust (UHS)

As the training lead for medical clinical research fellows, Dr Kristin Veighey aims to identify and promote research training opportunities for current and future healthcare professionals. In her unique role within UHS Research and Development (R&D), Kristin brings teams together, builds research networks and supports the set up and delivery of studies across a wide range of areas.

As a Consultant Nephrologist and a CRN Wessex renal research champion, Kristin also works clinically, splitting her time between UHS and the renal unit at Portsmouth Hospitals NHS Trust. Alongside colleagues, she aims to grow and strengthen Wessex's portfolio of renal research.

In this interview with VISION magazine, Kristin talks about nurturing future research leaders, her path in research and embedding research into everyday clinical practice.

"My role is about connecting people and creating opportunities to help move them forward."

NURTURING FUTURE RESEARCH LEADERS

"I've been in this role for just over three years. I spend a lot of time supporting others involved in research delivery. I'm on the ground helping research fellows and nurses. If they've got a problem, they usually come to me first and we try to solve it. My role is about connecting people and creating opportunities to help move them forward.

"There's a challenge across the board for people to have funded time to do research. And, even if you have the time, there's challenges in protecting it. We try to create a good environment where people can flourish. We try to include as many people as possible and support the whole multidisciplinary group of researchers. I think the CRN Wessex research fellows programme is important because it really shows how fellows can make an impact on recruitment.

"It's getting more common for junior doctors to do CV building years and research can be part of that. We support them with publishing abstracts and presenting at conferences to help move their career forwards in the hope that they will either come back to us later to do some research or get engaged with research in whatever job they do next.

"I talk to the senior house officers and registrars about research a lot. I try to get people to think about research and think about it early. Even if you're not interested in doing just research, that doesn't mean you can't get involved or co-investigate on some studies.

"From a trainee perspective, it's really confusing with everybody around you saying why they do things in certain ways. When I'm on the wards, I explain to trainees that we do things either because there isn't a lot of evidence so we base our practice on expert experience, or because there was a study and it showed the best way."

"I think research unites people in doing some good for patients"

EMBEDDING RESEARCH

"What we try to do here is make sure everyone knows what's going on. You may not be directly involved in research, but you help by talking to the patients about it. Patients like to know that you're endorsing research even if it's not your project directly.

"For me, it's important to encourage everyone to get involved. It's making sure that everyone is aware of the research projects and the kind of patients we're looking for. I think research unites people in doing some good for patients and I think patients feel that if you're offering research, you're an institution that's on top of its game and trying to push things forward. They feel you'll be able to offer them the best treatment because you'll be involved with what's new and cutting edge."

DEVELOPING A RESEARCH CAREER

"I went to medical school in Belfast and I did all my junior training in and around Wessex. I did nephrology training in London and I remember my supervisor sitting down with me on day one and saying, 'Right, what are you going to do your research project on?'

"Clinical research is clearly how you improve clinical practice. My subsequent clinical supervisor was talking to me about doing a fellowship in the Clinical Trials Unit and I thought that might be quite useful. And they then advertised for a clinical fellow to do a randomised control trial of a novel vitamin D therapy in transplant patients and I applied and got that job. When it came to looking for consultant jobs, I couldn't imagine something which didn't involve research.

"Now, I've got a 60% consultant nephrologist role and the other 40% of the time I work as a clinical research physician. Having worked in medicine for a while now, it feels like we're at a point where things are really moving forwards in so many clinical areas. There's new treatments for everything and it's hard to keep up to speed, but it's so exciting to see how clinical research impacts on practice and improves patient care.

"My main research has been in remote ischaemic preconditioning (RIPC). I was also a key part of a team which completed a multicentre, multinational, NIHR-funded study which demonstrated that RIPC can improve kidney function after transplantation. I have performed mechanistic studies in healthy volunteers and patients with chronic kidney disease, both developing novel models and refining existing models. Looking ahead, I'd hope to gain a postdoctoral fellowship to help me build my career as a clinical academic."

"This is an exciting time to be in hyperacute stroke care"

DR RICHARD MARIGOLD,
Consultant Stroke Physician
University Hospital Southampton
NHS Foundation Trust (UHS)

University Hospital Southampton has been awarded Hyperacute Stroke Research Centre (HSRC) status by the NIHR. The award will make UHS a specialist centre for research carried out within the first few hours of a stroke, when treatment is most likely to be effective.

The status has been given in recognition of the increasing numbers of patients that have been recruited into clinical trials following a stroke, and the Trust's plan to expand recruitment and research in the future. A multidisciplinary and collaborative approach to research delivery was also key to receiving the award.

A serious and potentially life-threatening condition, a stroke happens when the blood supply to part of the brain is cut off through blockage of a blood vessel, or rupture of a vessel leading to bleeding. Treating a stroke as soon as possible helps to limit the damage caused and improve patient outcomes. As new treatments emerge, continued research is needed to determine which will be the most effective.

With an ambition to offer patients a comprehensive round the clock research service within the next few years, developing the research workforce within the HSRC is now a key priority for the stroke team at UHS.

In this interview, Dr Richard Marigold, HSRC Lead and a Consultant Stroke Physician at the Trust, talks to VISION magazine about the award and plans for the future.

"This is an exciting time to be in hyperacute stroke care. This award will enable Southampton to be at the cutting edge of acute stroke research and means we can enrol more of our patients into the very latest clinical trials within the first six to nine hours of their symptoms starting.

"There's going to be a number of new clinical trials opening soon and we've got a nice balance in terms of portfolio studies which means that theoretically, every patient has the potential to go into a clinical trial.

"We are aiming to expand our recruiting windows to 12 hours a day, seven days a week, by creating a unique model in which the research nurses work alongside our stroke nurse practitioners with the consultant on call to randomise patients into hyperacute studies. These include trials assessing new drugs for thrombolysis or clot busting treatment for ischaemic stroke, and mechanical thrombectomy which involves removing a clot from a blocked blood vessel using a fine tube on the inside of the artery. Treating bleeding into the brain or intracerebral haemorrhage, there are drugs which are being tested that reverse the effects of anticoagulants, and anti-inflammatory treatments used to treat rheumatoid arthritis which might limit the size of the bleeding area and reduce inflammation around it, leading to less severe neurological damage.

"The whole thing about the HSRC is that it involves multiple agencies so we've had support from the A&E department, neuroradiology, neurosurgery, critical care, the Trust and R&D- it's not just the stroke department.

"We want to have research nurses working alongside our stroke nurse practitioners so that they're around to support randomisation and consent, and the aspiration is that our research nurse workforce will expand as this develops.

"We're also hoping to recruit some clinical fellows. It will be great to have trained enthusiasts who spend some of their time perhaps doing a higher degree, and the rest of their time driving recruitment into trials. We'd like to have two or three clinical fellows that we can nurture in the process who then become the stroke academics and physicians of the future.

"We're also looking at our stroke nurse practitioners to see whether they have a research interest and want to take things to the next level. There's quite a lot going on at the University of Southampton in terms of cerebrovascular research and this could be a real opportunity for an enthusiastic individual.

"There's a wide range of people that could step into this role and if we can support members of staff to apply, it will lead to greater things in the future. In addition to higher degrees, we could grow our own study portfolio- it would be really exciting to get our own studies up and running. One of my colleagues has some ideas about this and is currently looking at funding streams.

Some of our physios have also been involved in research, so there are things going on in the periphery and the HSRC is a great potential innovation in helping to draw things together.

"We're currently planning simulation training to run through all the clinical trials as well as the team completing Good Clinical Practice (GCP) training. We're going to take a mannequin down to the A&E department and actually run through each of the trial scenarios, giving the team some hands on experience so that the team is as prepared as they can be when we open the centre in April.

"It's a fantastic opportunity and we've been given the award at the right time when lots of new trials are coming out. This area of research will continue to grow and I think there will be new trials about devices, imaging and refining the pathways of acute stroke care within the first few hours, because we know that the greatest interventions to prevent neurological damage occurring happen within this critical time period. The quicker we can get these treatments and interventions on board, the better the outcomes for our patients."

MAKING DIGITAL HEALTH ACCESSIBLE FOR ALL

DR SARAH FEARN
Senior Research Fellow,
University Hospital Southampton
NHS Foundation Trust

DR SARAH FEARN

My Medical Record is an online personal health record (PHR) provided by University Hospital Southampton and owned by the patient. It helps patients to co-manage their healthcare by connecting them to their care team and providing a direct line of contact between them and the hospital. As well as helping to manage their healthcare, it can also help to reduce the need for hospital visits.

We are currently setting up a study called Neuro Online, designed to investigate how people with long-term neurological conditions can most benefit from using *My Medical Record*.

Moving aspects of healthcare into a digital arena has plenty of advantages, but it also requires comprehensive assessments and evaluations in order for healthcare professionals and their patients to get the most out of it. Neuro Online is designed to look at the benefits and challenges around people with long-term neurological conditions using *My Medical Record*.

"There are many opportunities to develop research skills through research groups, CPD and practical learning."

The study has been designed and set up over the past year, and recruitment to the research will begin in May. It's a large study looking to recruit 2,000 patients over seven years. The reason for the extended timescale is that we want to track patients' use of the platform over the course of their disease progression; different aspects might be helpful to them at the beginning of their use of *My Medical Record* compared to later in life.

We're looking at a range of different conditions in the study: epilepsy, multiple sclerosis, motor neurone disease, Huntington's disease and Parkinson's, young onset dementia and other atypical dementias. All of these conditions have hugely variable needs and the data we collect will help to ensure as many people as possible can access and benefit from the platform.

DR ALEXANDRA YOUNG
Senior Research Assistant,
University Hospital Southampton
NHS Foundation Trust

DR ALEXANDRA YOUNG

Due to the number of conditions included in the study, we've developed four sub-studies to help us better understand additional specific areas. These sub-studies look at how care planning takes place inside the online system, what personal characteristics influence how people use the platform, how people with young onset dementia and Huntington's disease use the platform, and how quality of life in young onset dementia can be assessed via the platform.

Both of us came into research from different backgrounds; Sarah from a social science background, with experience in political research and research design, methods and ethics, and I have an anthropology background supported by a mix of research and practical healthcare experience.

Having careers in different backgrounds hasn't been a barrier for us in getting involved in clinical research. Health research requires many skills that can be developed and transferred through other careers. By working in such a large-scale study, we are also able to develop new skills, collaborating across departments and continuously building new networks and research capabilities.

We both enjoy being hands-on in our research, with our current roles being a blend of working directly with patients and carers and being behind the data. Working to understand the patient perspective in order to influence healthcare – in our case digital healthcare – can be incredibly rewarding. It can provide a voice to patients whose experiences might otherwise not be heard, and research that improves services and approaches to healthcare can be just as powerful as medical research.

"Both of us came into research from different backgrounds."

Both of us have been fortunate to receive support from the NIHR Applied Research Collaboration (ARC) Wessex and training and support from CRN Wessex. There are many opportunities to develop research skills through research groups, CPD and practical learning. There are many projects to get involved with at University Hospital Southampton.

Even if you have a slightly unconventional background or experience in research, the opportunities are there for you to pursue, with help and support available. We would encourage anyone with an interest in clinical research to get involved.

MIDWIFE-LED RESEARCH:

HOW DOES PAIN MANAGEMENT IMPACT BIRTH OUTCOMES?

"I'm incredibly excited and proud, particularly because one of the findings is statistically significant."

Left to right: **VANESSA BARTHOLOMEW**, **REBECCA EDWARDS, DR DOMINIQUE MYLOD**

Under the guidance of Professor Vanora Hundley and the Wessex Integrated Clinical Academic Training Scheme at Bournemouth University, supported by the NIHR, registered midwives Vanessa, Rebecca and Dominique are championing midwife-led research.

Through the Clinical Academic Doctorate, their time is split between 60% research and 40% clinical practice giving them the opportunity to balance both.

Vanora and the midwifery team at Bournemouth University identified that the latent phase of labour presented a challenge when it comes to caring for women in labour. With so many variables, potential different outcomes and guidelines it became an area of focus to identify whether changes could create better results for mothers and babies.

Here, Vanessa, Rebecca and Dominique talk to us about the research they are doing and their hopes for the futures of women, midwifery and the NHS.

VANESSA BARTHOLOMEW – CLINICAL DOCTORATE MIDWIFE

My study is looking at women who catastrophise pain and the impact that this can have on their labour and birth outcomes. Research done by Professors Carol Clark and Vanora Hundley, my supervisors, and a team at Bournemouth University on women of reproductive age at university looked at how they cope and respond to pain and showed that pain catastrophising levels are high among this age group of women. No analysis has focused on how this could impact women in the latent phase of labour so I wanted to explore the prevalence of pain catastrophising in pregnant women and the potential link between pain catastrophising having an impact on the timing of admission to hospital when in labour and the subsequent birth outcomes.

The latent phase is an important part of labour as a whole. Research indicates women who come into hospital during the latent phase of labour (the early stage) often have more interventions during labour and the birth of their child which can lead to greater healthcare needs following birth. What tends to drive most women to hospital in the latent stage of labour, is their pain. So I wanted to explore how managing pain at home could change the impact on women's experiences during labour and their birth outcomes.

It's a tricky subject area as there is no clear definition and little guidance for managing the latent phase of labour other than advising women that it is safe for them to remain at home during the latent phase if there are no additional healthcare needs for her or her baby. Therefore, women are left in the position of trying to judge when active labour has begun and the 'right time' to go to hospital. It's also a strange phenomenon because pain is so often an indicator in your body that something is wrong; however with labour, pain is a common indicator that your body is doing what it's meant to be doing and rarely a sign that something is wrong. So supporting women with how to cope with it, and that it isn't a negative indicator, is a challenge. It's an enormous override of how we would normally view pain.

The research I'm currently undertaking is a study to determine if pregnant women who pain catastrophise are more likely to attend hospital during the latent phase of labour. The results of this study will direct what further research may be needed. This future work could explore the use of self-hypnosis, an area of interest for Dr Ben Parris my other supervisor, and other alternatives to manage pain at home. I will focus on what women say they want as support so that they don't feel alone or scared during this stage of their labour.

This is the first research project that I've been involved in the design of, which has been a real learning curve. I've found it invaluable having the mix of clinical practice and research because I'm able to discuss my research with other midwives and get on-the-ground feedback and discussion.

"I would encourage my fellow midwives to get involved in research. We have the power to change guidelines and influence practice day-to-day which is incredibly powerful."

For me, the opportunity to have a wider impact in my work through research is really exciting. The contribution midwives make to maximising and improving the health of women, babies and families is considerable. Midwifery can get squashed and squeezed compared to other NHS services, so getting the chance to demonstrate our impact and our potential to change and grow our services is huge.

I would encourage my fellow midwives to get involved in research. We have the power to change guidelines and influence practice day-to-day which is incredibly powerful. I'm really keen to continue to explore the role of the midwife and how developing closer relationships between midwives and mothers could change health outcomes for the better.

Vanessa's study is part of the NIHR recognised Wessex Academic Clinical Pathway enabling it to be adopted on to the NIHR Clinical Research Network (CRN) portfolio.

REBECCA EDWARDS – CLINICAL DOCTORATE MIDWIFE

The study I have developed is a web-based intervention that offers advice, videos and education via a website on the latent phase of labour. I gathered information from women on their past experiences of the latent phase of labour and asked them what they found useful and what helped them to cope.

We know that women have better birth outcomes overall if they stay at home longer during the latent phase of labour, so by improving their experience of this phase of their labour I wanted to explore whether this would impact their birthing outcomes and their experience of labour.

Pregnant women, expecting their first baby, are given information about the trial and if they want to get involved then I send them a self-efficacy questionnaire to complete and then they are randomised into the trial. Some women get directed to the web intervention tool and the other group don't, and continue to have the routine midwifery-led care during their pregnancy.

After they have had their baby, I ask them to complete another questionnaire about their early labour experience at home. I began looking at establishing the study back in 2015. It has taken a lot of researching, gathering evidence and learning about research protocol, guidelines and recruitment to get to the point where I was able to recruit for the trial. My data collection should finish in May 2020, when I'll then be able to analyse the results and hopefully publish a paper.

This is the first research project that I have built and created and it's been a learning curve. I wanted to take on the Clinical Academic Doctorate because I've always enjoyed learning and I wanted to continue this within my work. It gives me the opportunity to impact so many women's lives through research and practice and gives me on-the-ground insight into our interventions and whether they are working.

In the past, midwifery research has focused a lot on obstetric goals. I think it's important that we also focus on goals that sit outside of the medical remit and look at how women experience childbirth and pregnancy. Do they feel safe? What are their interactions with us like? How are they looked after? A holistic approach to our research will give us greater insight into how we manage one of the most challenging, and potentially frightening, experiences of a woman's life.

I would say to any other midwives looking to get into research, to go for it. We need midwives involved in research. It will be the best and most challenging thing you've ever done. I've learnt to keep going even when I've reached a stumbling block and it has helped me to become more tenacious and keep an eye on long-term goals that will help to shape the future of midwifery.

Wessex Integrated Clinical Academic Training Scheme

The Let's Talk Early Labour study has been adopted onto the NIHR CRN Portfolio. It is funded by the Wessex Integrated Clinical Academic Training Scheme and sponsored by Bournemouth University. Rebecca Edwards is also supervised by Professor Susan Way.

DR DOMINIQUE MYLOD – CLINICAL DOCTORATE MIDWIFE

I wanted to explore the use of a birth ball in the latent phase of labour to see if it would reduce women's pain perception. There was a lot of information which supported using the birth ball in active labour, but hardly anything about using the birth ball in the latent phase of labour and absolutely nothing that supported using the birth ball at home in the latent phase.

I set up the BALL trial with two parallel groups of low risk pregnant women. They were randomly allocated to either the intervention arm or to the control arm.

The control arm had normal care; they just did what they'd always done. The intervention arm received a birth ball to use at home in early labour. They were also asked to watch a 90-second infomercial called 'Having a Ball in Early Labour'.

When the women arrived at hospital, they were asked to mark their pain on a ten-point visual analogue scale, which went from 'no pain' to 'worst pain imaginable'.

I'd had previous experience as a chief investigator while studying for my MSc degree in Advanced Clinical Practice but this study was very different because I had to work with hundreds of people. It was a slow start and I hadn't realised that I was going to need a bit more time for recruitment and data collection.

I can't believe how much I've learnt. I hope it's made a contribution to the maternity unit; I could not have done it without the kind, generous staff, and certainly the research setting, which I have become insanely fond of, because the people I met were so lovely and altruistic. So many of my participants said; 'I'll do it to help other women.'

Arriving at hospital in a better frame of mind has the potential to contribute towards more straight forward labours and births. My findings will be published and I have already presented the preliminary findings at the Normal Birth Research Conference. I'm currently in the process of collating the results onto an infographic, which will be shared with study participants.

I'm incredibly excited and proud, particularly because one of the findings is statistically significant. From the findings that I've got, I think there's a strong case to take it wider, and I want to do other research. I've definitely been bitten by the research bug!

This research is about making families' lives better, promoting normal birth, helping babies arrive better and making happier families with better births. As a contribution to national and international public health, the ramifications are huge.

The BALL study, which has been adopted onto the NIHR CRN Portfolio, is funded by the Wessex Integrated Clinical Academic Training Scheme and sponsored by Bournemouth University. Dr Dominique Mylod is also supervised by Professor Susan Way and Professor Carol Clark.

WESSEX SECURES FUNDING FOR REGIONAL

TRAINING AND CAPACITY DEVELOPMENT INITIATIVE

NIHR infrastructure in Wessex has secured funding to pilot a three-year workforce development initiative. Known as the REACH initiative, it will aim to build capacity and capability of the Wessex academic research workforce.

The funding, awarded by the NIHR Research Capacity Development Group in April 2020, will make Wessex the first geographical 'incubator' in the country. Incubators, which are virtual and managed across multiple sites, are part of an NIHR initiative to support capacity building and provide targeted, multidisciplinary career development opportunities in priority areas.

In Wessex, the REACH initiative will help our regional NIHR infrastructure, like the Biomedical Research Centre (BRC), Applied Research Collaboration (ARC) and School for Primary Care, to establish a joint approach to building the capacity and capability of Chief Investigators (CIs) and support the identification and development of Early Career Researchers (ECRs).

The support funding, worth £20k a year, will focus on three key areas:

- Those who are pre-doctoral with potential to train at doctoral level
- Those who are doctorally prepared with potential to pursue a post-doctoral research career
- Aspirant CIs

If successful, the concept of regional incubators could be spread to other parts of the country, based on the model spearheaded in Wessex.

Professor Alison Richardson, Director of NIHR ARC Wessex, said: "This is a very exciting opportunity for the region. The REACH initiative will support regional infrastructure to establish a joint approach to facilitating the growth of future health and care researchers, regardless of profession or discipline.

"This is a very exciting opportunity for the region."

"There is significant NIHR infrastructure in Wessex that can provide support for the promotion of academic research careers and pathways, and the Wessex geographical incubator will enable us to work together to ensure individuals in all professional groups and disciplines access programmes and support needed to advance a career in health and care research."

On the impact of the initiative, Prof Richardson continued: "This provides an opportunity to continue to build on and strengthen emerging and established links across our infrastructure. This will ensure a unified strategy for the promotion of career pathways and opportunities, a converging approach to the identification of ECRs and aspirant CIs, and a collaborative effort to align training and development activities to ensure they are most effectively situated to support individuals.

"We are keen to establish equality, diversity and inclusiveness of access to academic-related career pathways."

"By working in this way, we hope to increase the number of ECRs and CIs across the region, drive the development of locally led portfolios of high-quality NIHR research and ensure robust career and succession planning happens at a regional level, across a range of different disciplines and professional groups.

"We hope to develop a local system of identification, support and navigation to ensure more people take advantage of the pre-doctoral fellowship awards available through both the Integrated Clinical Academic (ICA) and Fellowship programmes. We also seek to develop the skills and knowledge of new CIs and establish mechanisms for peer support and mentorship."

Following a period of consultation with key partners across the region, it is hoped the REACH initiative will launch in the late autumn of 2020.

Prof Richardson added: "We are keen to establish equality, diversity and inclusiveness of access to academic-related career pathways and will spend the next few months engaging and consulting with our partners about how we develop and sustain a skilled academic research workforce across a range of disciplines and specialties. Please look out for more information in the coming weeks."

WESSEX TRAINEES WORK TOGETHER TO SUPPORT

COVID-19 RESEARCH

DR DAN OWENS

Top left: the team at Queen Alexandra Hospital (QAH) in Portsmouth supporting the RECOVERY trial

Since the outbreak of coronavirus, research fellows and trainees across Wessex have been working together to support the delivery of nationally prioritised, urgent public health (UPH) research.

Working collaboratively and sharing resources has been essential to the successful delivery of COVID-19 research and has enabled the region to open 16 UPH studies, seven of which are led by the Wessex network.

In this interview, three CRN Wessex Research Fellows describe their experience of supporting COVID-19 research and highlight the contribution of the region's future research leaders.

"The role of fellows in research is more than just training, we bring new ideas and a network of collaborators to projects."

DR LAURA WIFFEN

Respiratory Research Fellow, Portsmouth Hospitals NHS Trust (PHT)

I have been working as a Respiratory Research Fellow at PHT since August 2019, supporting delivery of the large respiratory research portfolio, as well as developing new studies with the Portsmouth Technology Trials Unit.

As a result of the coronavirus pandemic, the entire research team in Portsmouth has been remodelled, with development of the COVID Trial Team. This is a multi-disciplinary team made up of consultants, specialist research nurses, trial assistants, pharmacists, physiotherapists, midwives and research fellows, tasked with the delivery of UPH COVID-19 research studies. I am the lead research fellow for the RECOVERY trial in PHT, and have also been supporting the Recovery-RS, Stop-COVID19 and ISARIC (CCP) at PHT, whilst my colleagues have also been supporting the vaccine trial in Southampton.

It has been a great experience to be part of a team that has shown such dedication and commitment to delivering these trials and ensuring that every single patient admitted to QAH with COVID-19 is offered the opportunity to take part in, and has access to, potential treatment options that they wouldn't otherwise have had.

I am really proud of the contribution the research fellow team have made in Portsmouth during the COVID-19 pandemic. During a time of great uncertainty, fellows re-joined their clinical teams and on-call rotas to support patient care, but were also given the opportunity to use their research delivery skills recruiting patients into pivotal UPH COVID-19 research studies. Although the COVID-19 pandemic has posed many challenges, it has been a privilege to witness research in action with the discovery of a beneficial treatment for the disease.

DR DAN OWENS

Clinical Research Fellow and Paediatric Registrar, University Hospital Southampton NHS Foundation Trust (UHS)

I have been working as a Clinical Research Fellow in the NIHR Clinical Research Facility since September 2018. I also work clinically in the Paediatric Emergency Department at UHS.

Since the pandemic, I have been working on the University of Oxford vaccine trials, ImmunoCovid and DIAMONDS. It's been a huge team effort to deliver the Oxford vaccine trials which has required lots of organisation and planning. In addition to screening participants and providing medical cover, my role has been to help organise and coordinate the research fellows. Due to the size of the project, we have been working with CRN research fellows from UHS and Portsmouth to ensure we have enough doctors to deliver this ambitious project.

The first few weeks were discombobulating as everything I had been working on suddenly stopped! Once the COVID-19 related studies started, it has been satisfying to see my work as a research fellow contribute to efforts to understand and treat the disease. Through the vaccine trials, I have learnt a great deal about project management and delivering large studies rapidly. With so much panic and misinformation about COVID-19 around, it has been hugely satisfying to contribute to studies that enable us to understand and ultimately treat the disease.

The role of fellows in research is more than just training, we bring new ideas and a network of collaborators to projects. For example, by working in the Paediatric Emergency Department, I can engage and mobilise a cohort of colleagues who are keen to help and further COVID-19 research. This clinical work also helps us appreciate the realities of day to day clinical practice, so our research is shaped by real-world research questions and conundrums.

DR MEERA SHAUNAK

Senior Clinical Research Fellow, UHS

Prior to the pandemic, I was leading the delivery of two commercial multi-centre randomised control trials on adolescent obesity – the first on non-alcoholic fatty liver disease and the second on the effect and safety of Semaglutide, a GLP1 analogue, given as a weekly injection. I also supported other paediatric clinical trials conducted at UHS, mainly but not limited to paediatric endocrinology and diabetes studies.

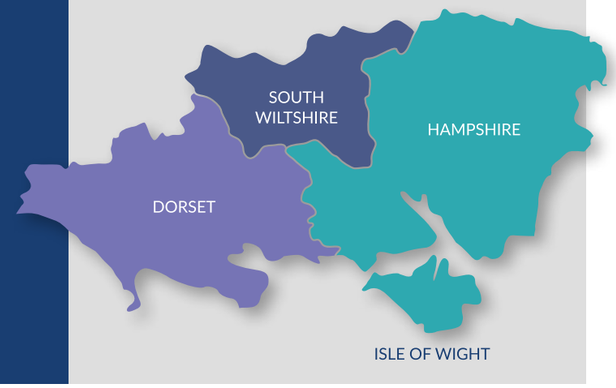
I am currently supporting the delivery of ImmunoCOVID19 – a multicentre study looking at the impact of coronavirus in children and young people who are more vulnerable to infections of any kind, or who are taking medications that affect their immune system.

I am part of a small team running the study, which is continuing to expand. I am involved in local recruitment. I support participants and families by answering queries sent to the study email address and support study delivery at other centres. I also clean the data every week to ensure it is correct, consistent and useable, before it's generation into a weekly report that gets sent to NHS England.

It is incredibly fulfilling to be involved in a study that is providing up-to-date, high-quality information on the impact of COVID-19 in immunocompromised children, which forms part of the growing evidence base for national health advice.

Research teams across the country are working together to address the COVID-19 pandemic in numerous innovative projects – research fellows and trainees with experience in research are integral to the delivery of these studies, for example, helping with recruitment, administering medication, collecting samples and trouble-shooting queries.

Providing study support throughout Wessex



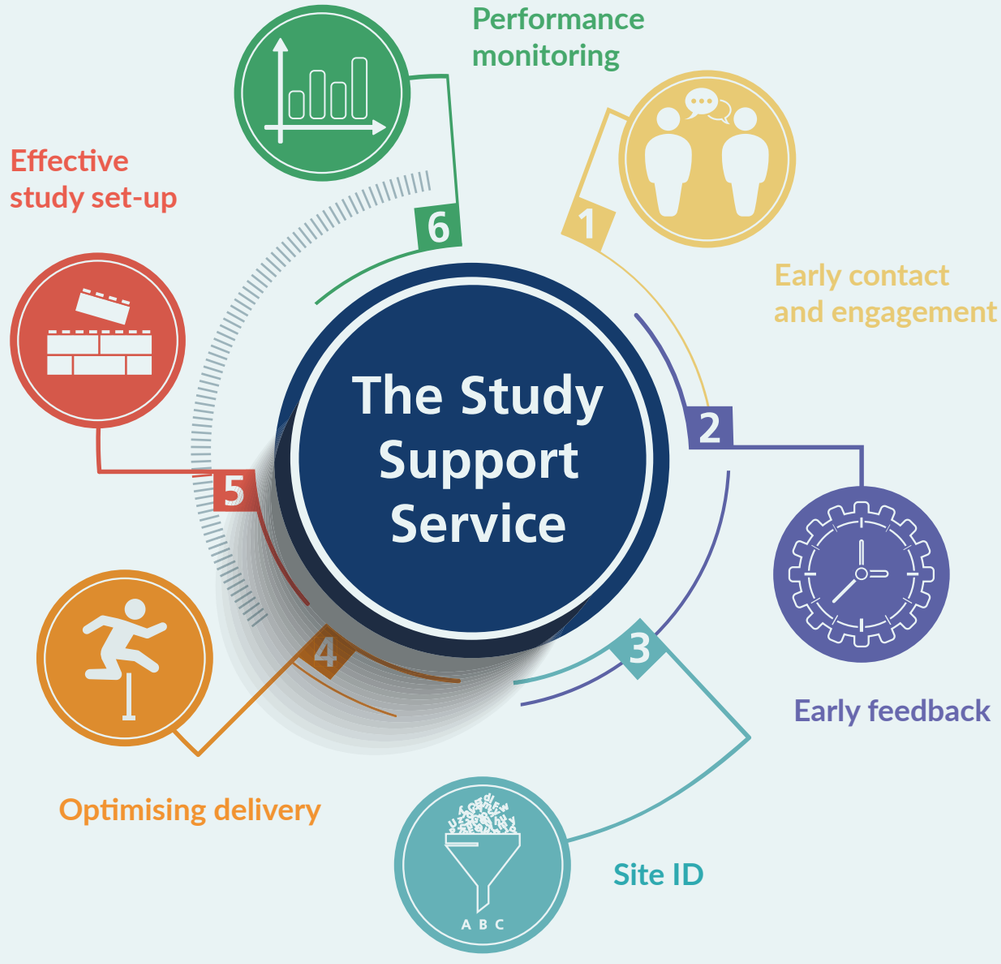
The CRN Wessex Study Support Service helps researchers and the life sciences industry plan, set up and deliver high quality research to time and target in the NHS and across the wider health and social care environment in Wessex.

We provide this service for all studies eligible for our support, regardless of location, study type, study size, therapy or research area. In 2019/20, we supported 97 newly opened studies and continued performance support for 137 studies, both commercial and non-commercial.

Those new to research are recognised as future research leaders and we are committed to supporting the development of this key research workforce. We offer a number of training and development opportunities to support those new to research with study delivery. Some highlights from 2019/20 include:

- **32 named training leads supporting those new to research in Wessex**
- **Nine successful Wessex applications for the NIHR and Health Education England Transition and bridging awards**
- **Two Wessex research fellows recognised with trainee awards by the NIHR and The Royal College of Physicians**
- **13 Principal Investigator (PI) workshops delivered to 160 budding new PIs**
- **49 new researchers identified across the region**

To find out more about our training and support services, please get in touch using the details below.



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