Morecambe Bay investigation report published

Following concerns over serious incidents in the maternity department at Furness General Hospital (FGH), the Morecambe Bay Investigation report has now been published. Covering January 2004 to June 2013, the report concludes the maternity unit at FGH was dysfunctional and that serious failures of clinical care led to unnecessary deaths of mothers and babies. The Investigation Panel also reviewed pregnancies at other maternity units run by University Hospitals of Morecambe Bay NHS Foundation Trust. It found serious concerns over clinical practice were confined to FGH.

The investigation report details 20 instances of significant failures of care in the FGH maternity unit which may have contributed to the deaths of three mothers and 16 babies. Different clinical care in these cases would have been expected to prevent the death of one mother and 11 babies. This is almost four times the frequency of such occurrences at the Trust's other main maternity unit, at the Royal Lancaster Infirmary.

The report says the maternity department at FGH was dysfunctional with serious problems in five main areas:

 Clinical competence of a proportion of staff fell significantly below the standard for a safe, effective service. Essential knowledge was lacking, guidelines not followed and warning signs in pregnancy were sometimes not recognised or acted on appropriately.

- Poor working relationships between midwives, obstetricians and paediatricians. There was a 'them and us' culture and poor communication hampered clinical care.
- Midwifery care became strongly influenced by a small number of dominant midwives whose 'over-zealous' pursuit of natural childbirth 'at any cost' led at times to unsafe care.
- Failures of risk assessment and care planning resulted in inappropriate and unsafe care.
- There was a grossly deficient response from unit clinicians to serious incidents with repeated failure to investigate properly and learn lessons.

The report says proper investigations into serious incidents as far back as 2004 would have raised the alarm. It was not until five serious incidents occurred in 2008 that the reality began to emerge.

Investigation chairman, Dr Bill Kirkup, said: "There was a disturbing catalogue of missed opportunities, initially and most significantly by the Trust but subsequently involving the North West Strategic Health Authority, the Care Quality Commission, Monitor, the Parliamentary and Health Service Ombudsman and the Department of Health. "Over the next three years, there were at least seven opportunities to intervene that were missed. The result was that no effective action was taken until the beginning of 2012."

For the Trust, key recommendations include: an apology to families; reviewing skills, training and duties of care; better team working; better risk assessment; an audit of maternity and paediatric services; better joint working across its sites; forging links with a partner Trust; reviewing incident reporting and investigation, complaint handling and clinical leadership; and improving the physical environment of the delivery suite at FGH.

The General Medical Council and Nursing and Midwifery Council are recommended to consider investigating the conduct of those involved in patient care. A national review is also recommended of the provision of maternity and paediatric care in rural, isolated or difficult to recruit to areas.

Other recommendations call for action from Trusts, professional regulatory bodies, the Care Quality Commission, Monitor, the Department of Health, NHS England, nursing and midwifery organisations and the Parliamentary and Health Service Ombudsman. The report concludes that significant progress is being made at FGH.

Nanotechnology shows promise for kidney disease care

According to a report by the Institution of Mechanical Engineers, a new medical device which combines nanotechnology with a pregnancy tester could help diagnose and treat the one million people in the UK who do not know they have kidney disease.

Developed by engineers in London, the $\pounds 10$ device can be used at home and could revolutionise kidney disease care in the UK, which currently costs the NHS over $\pounds 1.4$ billion – more than breast, lung, colon and skin cancer combined.

Created by Bio Nano Consulting, the device – called quantitative electrochemical lateral flow assay (QELFA) – uses nanoparticles to test the patient's urine giving results in seconds and is linked to their surgery via mobile technology so doctors can track how the disease is developing. The Institution's new report –

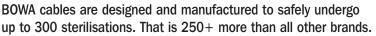
Nanotechnology: The Societal Impact of the Invisible – highlights the enormous potential for nanotechnology in our society but calls on the Government to increase funding for nanotech development to ensure the UK does not fall behind other nations.

Report author, Dr Helen Meese, head of materials at the Institution of Mechanical Engineers, said: "Nanotechnology could revolutionise the way we live our lives – it can be used in everything from food and healthcare to electronics, clothing and cosmetics. But despite



its 40 years in the public domain, the nanotechnology industry is still failing to engage with society in an open and clear way, and governments continue to lack impetus in committing to international regulation. The UK Government must provide more funding to ensure that the UK benefits fully from nanotechnology's potential."

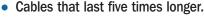
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Ensuring respect and dignity in the ICU

Identifying loss of dignity and lack of respectful treatment as preventable harms in healthcare, researchers at Johns Hopkins have taken on the task of defining and ensuring respectful care in the intensive care unit (ICU). Their novel, multi-method approach is presented in a dedicated supplement to the journal *Narrative Inquiry in Bioethics*.

"In healthcare, the importance of respect and dignity is often invoked, but has not been clearly defined in regard to treatment in the ICU," said Jeremy Sugarman, the Harvey M. Meyerhoff Professor of Bioethics and Medicine at the Johns Hopkins Berman Institute of Bioethics. "To prevent harms related to respect and dignity in the ICU there is a prerequisite need for clarity regarding what exactly constitutes optimal treatment in this regard, and then to develop methods to measure it."

To lay that groundwork, bioethics scholars on the research team developed a conceptual model

HRT may increase risk of stroke

Hormone Replacement Therapy (HRT) does not protect post-menopausal women against cardiovascular disease and may increase risk of stroke, according to a recent study. Research, published in the Cochrane Library, looked at data from more than 40,000 women across the world. The results found no evidence that HRT provides any protective effects against death from cardiovascular disease, non-fatal heart attacks or angina, either in healthy women or women with pre-existing heart disease. However, the researchers did find some evidence of a small increased risk of stroke for post-menopausal women.

Maureen Talbot, British Heart Foundation, senior cardiac nurse, commented: "It is important that women have a full understanding of the risks and benefits of HRT and they should talk this through with their GP." defining three sources of patient dignity: shared humanity, personal narrative, and autonomy. Each of these sources of dignity demands respect, said Leslie Meltzer Henry, a professor at the Berman Institute and first author of the article outlining the conceptual model.

"In the modern healthcare system, there is risk of technology-focused communication and decision-making taking precedence over dignityrespecting care," Prof Henry commented.

The conceptual model describes the types of respect that each source of dignity requires in the ICU, and offers a framework for identifying and rectifying threats to patients' dignity in that setting. For example, the article states: "Respecting the dignity of patients as human beings begins with not objectifying them. When clinicians refer to patients by name, look them in the eye, introduce themselves, and describe the care they are providing, they treat patients as people rather than objects." The research team collected data through interviews with patients and families in the ICU, focus groups with healthcare professionals who work in the ICU, and direct observations. Four consensus areas were identified on what constitutes treatment with respect and dignity in the ICU: treatment as a human being, treatment as a unique individual, treatment as a patient who is entitled to receive professional care, and treatment with sensitivity to the patient's critical condition and vulnerability in the ICU.

The study of respect and dignity in the ICU is the bioethics component of the larger 'Emerge' project at Johns Hopkins, led by the Armstrong Institute for Patient Safety and Quality and funded by the Gordon and Betty Moore Foundation. The project aims to decrease preventable harms in the ICU through systems engineering approaches. http://muse.jhu.edu/journals/ narrative inquiry in bioethics/toc/nib.5.1A.html.

NICE recommends device for prostate treatment

New guidance has been released by the National Institute for Health and Care Excellence (NICE) recommending Olympus Medical's transurethral resection in saline (TURis) system for use in surgery to reduce the size of enlarged prostate glands in men. NICE published the guidance in light of the potential it offers NHS hospitals to realise substantial cost savings of £285-£375 per patient while also improving patient outcomes.

NICE has concluded that the use of TURis for transurethral resection of the prostate (TURP) for benign prostate enlargement (BPE) avoids the risk of transurethral resection (TUR) syndrome and reduces the need for blood transfusions. TURis also demonstrated equivalent efficacy to monopolar systems – long considered the 'gold standard' for TURP.

Additionally the Committee found that, as a result of using TURis, there is potential to reduce the length of hospital stay and its



associated risks for each patient, as well as reducing hospital readmissions. Not only may these benefits improve patient satisfaction and outcomes, but could also result in improved waiting list times, general health system efficiency and increased hospital revenue by switching to day-case procedures.

Approximately 15,000 TURP procedures are carried out each year in England and Wales. With potential savings of between £285 and £375 per patient, at least four million pounds could be saved per year by NHS implementation of the new NICE guidance. www.nice.org.uk/guidance/mtg23.

'Patchwork' ovarian cancer more deadly

The most common type of ovarian cancer is more deadly if it consists of a patchwork of different groups of cells, according to a Cancer Research UK study published in *PLOS Medicine*.

Serous ovarian cancers containing a variety of genetically-different cells were more likely to become resistant to treatment and come back again than cancers made of more similar cells. Women with this type of tumour also died sooner than those with less varied tumours.

The scientists, from the Cancer Research UK Cambridge Institute, Cambridge University and Addenbrooke's Hospital, analysed DNA from 135 samples of serous ovarian cancers from 14 patients having chemotherapy. The team is the first to measure the genetic variety – called tumour heterogeneity – in a solid tumour and link this to cancer survival.

Tumour heterogeneity begins as tumours evolve from a single damaged cell, which quickly changes and develops into a patchwork of different cell groups. Each patch of cells contains a similar but distinct set of DNA errors, so can look and behave differently from other cell clusters. This makes treating the disease more challenging, with some groups of tumour cells being more resistant to chemotherapy than others. Lead researcher Dr James Brenton, from the Cancer Research UK, Cambridge Institute, said: "Our research is important because it helps make sense of the genetic chaos inside tumours. It's another step closer to cracking the code on cancer biology so that we can understand sooner how patients will respond to treatment – and how to develop better drugs for this hard to treat cancer in the future."

The team also found that gene faults contributing to drug resistance were present in some parts of tumours before treatment began, replacing the previous belief that chemotherapy caused these genetic changes.

New research on diabetes and exercise



Reducing insulin dosage can help diabetics avoid blood sugar dips at night after exercising in the evening, a new study from Northumbria University has found. Funded by Diabetes UK and the Northumbria University Strategic Investment Fund, it is the first study to have found a way to completely avoid these dangerous falls in blood glucose that occur after exercise.

Dr Dan West, a senior lecturer in sport, exercise and rehabilitation, and his PhD student Matthew Campbell, who is now a senior research associate in the department, set out to test whether altering diet and insulin doses could help to prevent this potentially life-threatening problem. "For diabetes sufferers, the fear of experiencing a dangerous blood sugar dip after exercise can prevent them from exercising altogether – which has both physical and psychological implications," explained Dr West. "We have developed a strategy to manage insulin dosage in a way that prevents these falls in blood sugar so that diabetics can exercise safely."

Their two-part study, which was carried out at the Royal Victoria Infirmary's National Institute Health Research (NIHR) Clinical Research Facility in Newcastle in collaboration with Professors Mark Walker and James Shaw looked at the effects of adjusting slow-acting insulin levels in a group of 10 male participants with Type-1 Diabetes. Blood sugar levels were monitored using a continuous glucose monitor which sits underneath the skin and has an alarm which is trigged if levels begin to fall dangerously.

In the first test, all participants took a normal slow-acting insulin dose and then completed a 45 minute exercise session at 6pm in the evening. Around 7-8 hours after the exercise, 90% of the patients experienced a blood sugar dip, all of which occurred while they were sleeping.

During the second test, the insulin dose was reduced by 20% and participants took part in the same evening exercise session. This time, however, none of the participants suffered from drops in blood sugar.

Unexpectedly, the study also found that the 20% reduction of insulin not only prevented blood sugar from falling but also stopped glucose levels from rising too high. With this dose, levels remained within the ideal healthy range, and other important markers such as ketones and inflammatory cytokines were not affected.

Medway to benefit from new NHS support team

Medway NHS Foundation Trust has agreed an enhanced buddy arrangement with Guy's and St Thomas' NHS Foundation Trust, which will support the new leadership team at Medway to improve the performance of the hospital.

The collaboration, which will involve a small and highly experienced team from Guy's and St Thomas', will assist the leadership at Medway to implement and embed best practice, strengthen clinical leadership and support the significant changes they are making to improve patient care and standards.

Medway was put into special measures by Monitor in July 2013, and as part of special measures, Trusts are often partnered with high performing NHS organisations. This buddying usually concentrates on specific projects. However, the support package announced will offer advice and expertise to support Medway delivering its own 18 month recovery plan to ensure widespread, lasting improvement for patients.

NEWS IN BRIEF

Top NHS nurse joins health regulator

Dr Ruth May, a former NHS theatre sister and chief nurse, is joining the health sector regulator Monitor. She has been appointed to the role of nursing director – a key post within Monitor's patient and clinical engagement team. In this role she will complement the clinical advice provided by Professor Hugo Mascie-Taylor, Monitor's medical director and executive director of patient and clinical engagement.

Dr May said: "This is a really exciting time to be joining Monitor. The NHS faces a real challenge delivering the quality of care patients expect within the funding available.

"The recent 'Stop the Pressure' campaign, which I led, demonstrates how thinking creatively can improve patients' experience – in this case reducing the number of pressure ulcers by 50% – and deliver cost savings to the NHS...I look forward to bringing that kind of thinking to the health regulator."

New proton therapy centres

Varian Medical Systems has announced that it has been selected to equip and service two new national proton therapy centres in England with the Varian ProBeam proton therapy system. Under a public tender, Varian was selected as the preferred supplier to provide equipment and service to operate two three-room centres to be constructed in London and Manchester in a contract valued at up to £80 million. Varian expects to conclude and sign the contract and book the equipment portion of the order in the summer.

Equipment installation is expected to take place from August 2017, with patient treatments expected to begin from 2018. The UK's two national proton therapy centres will be located at UCLH (University College London Hospitals NHS Foundation Trust) in London and The Christie NHS Foundation Trust in Manchester.

City & Guilds accredited training on endoscope care

Aquilant Endoscopy, the exclusive provider of Fujifilm endoscopy equipment in the UK, has been awarded City & Guilds accreditation for its endoscope care and maintenance course. The first programme of 2015 was held at Aquilant Endoscopy's Ross-on-Wye technical centre and was attended by approximately 10 nurses and healthcare assistants who are involved in the cleaning and care of scopes. Delegates gained an in-depth understanding of effective cleaning methods and were provided with background knowledge and technical insight into endoscopes and gastro-intestinal procedures.

Review of medical innovation in NHS

The Wellcome Trust is working with the Government Office of Life Sciences to take forward a review that aims to transform the speed and efficiency that new medicines and technologies are adopted by the NHS and benefit patients.

The Innovative Medicines and Medical Technology Review was established to identify the barriers to translating medical innovation into new drugs, treatment devices and diagnostics. The Review will develop recommendations to ensure that promising medical research, such as that funded by the Wellcome Trust, quickly makes its way into hospitals and clinics where it can improve patient health.

Health Secretary, Jeremy Hunt, has announced Sir Hugh Taylor as the chair of the Review. Sir Hugh is currently chair of Guy's and St. Thomas' NHS Foundation Trust. He will be supported by an expert advisory group headed by Professor Sir John Bell, Regius professor of medicine at Oxford University.

The Review has been endorsed by the three main political parties to ensure that the findings are given the attention they merit, whatever the composition of the next Government. The Wellcome Trust will work with the review team to enable research and engagement with stakeholder communities.

Dr Jeremy Farrar, director of the Wellcome Trust, said: "Giving patients timely access to new medicines and medical technologies is at the heart of a successful healthcare system. However, medical innovation in the UK, much of which is funded by the Wellcome Trust, is often not realising its full potential to improve health. This review is an important step towards ensuring that patients can benefit as quickly as possible from new discoveries, and we are glad that the Government, with strong cross party support, is continuing to take it forward."

Sir Hugh Taylor said: "NHS patients and their families deserve the quickest access possible to cost-effective new medical innovations, so it is a real privilege to be asked to lead this important review. By looking across the whole healthcare system I hope that we will be able to identify ways in which the latest advances in medicines and technologies can get from the lab to patients as quickly and safely as possible. This is a vital piece of work which has the potential to have a positive impact not only on the NHS and patients but also our world leading science and research base."

'Time of year' lottery for knee and hip surgery

The 'time of year' lottery faced by patients needing a knee or hip replacement on the NHS became worse in 2014, according to data from the Medical Technology Group. It suggests that timing is more critical than ever in determining how soon patients receive treatment.

Between March and April last year, hip operations fell by 13% and knee operations fell by 17% in England, implying that the financial calendar rather than patient need is still a huge factor in determining when patients are treated. There was also dramatic regional variation, with knee operations falling by 33% in London compared to just 2.5% in the Northeast.

The Medical Technology Group's report *Hip* and knee replacements: combating patient lotteries

revealed for the first time that the number of hip and knee replacements on the NHS in England fell dramatically from March to April almost every year from 2004 to 2013. On average, there were 498 fewer hip replacements and 641 fewer knee replacements in April than in March.

The drop in March/April 2014 coincides with the end of the financial year on 31 March, implying NHS Trusts' financial calendars were driving patients' access to therapy. In the public sector, organisations forecasting that they may under-spend at the end of the financial year are incentivised to spend up to their delegated limit. Therefore they conduct additional activity at the end of the financial year.

Given that the average wait for a hip or knee

replacement is 15 weeks, the time of year lottery suggests that just before Christmas may be the best time to be referred, while just after Christmas may be the worst time of year.

Barbara Harpham, chair of the Medical Technology Group, said: "Getting a hip or knee replacement can dramatically change your quality of life, get you back to work and to caring for your loved ones. It also relieves the long-term costs to the NHS. But now we are seeing even more cases of the NHS scaling back these procedures depending on what time of year it is. There should be no discrepancy based on time of year and where you live. The Government should look into ensuring equal access at all times of the year."



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Women surveyed on breast screening

Most women (85%) would back the idea of more frequent breast screening if they are at higher genetic risk of developing breast cancer, according to research published by *The Breast*. Fewer women (60%) would be happy to be screened less often if they were found to be at lower risk.

More than 940 women from across the UK were asked for their views on the possibility of tailoring breast screening to people's genetic risk in a study funded by Cancer Research UK and The Eve Appeal. Two-thirds (66%) supported the idea of adjusting the frequency of screening on the basis of risk.

The NHS breast screening programme offers routine mammograms based on age, rather than genetic risk. All women between 50 and 70 are invited for screening every three years, and women over 70 can request screening if they wish, because older women are at increased risk of the disease. Women with a strong family history of breast cancer may be offered a different pattern of screening.

Breast screening can help detect cancers early, when treatment is more likely to be effective, and is estimated to save around 1,300 lives from breast cancer in the UK each year. But as well as picking up cancers that need treating, screening can also detect very slow-growing cancers that would not have been picked up without screening.

This means some women are treated unnecessarily for a cancer that would not have caused any problem during their lifetimes.

Dr Susanne Meisel, research psychologist at University College London, said: "Looking at whether genetic risk could be used to tailor and improve the breast screening programme is still at an early stage, but it's useful to find out now what the public might think about this idea. Our study showed that, overall, women seem to support it."

Athena Lamnisos, CEO of The Eve Appeal, said: "Women at increased risk of cancer deserve more than the one-size fits all approach. This study shows that women were positive about the idea of adjusting the frequency of mammography screening in line with personal genetic risk. It also shows how critical it is to develop effective communication materials – both for women at high risk and those at lower genetic risk."

Jessica Kirby, Cancer Research UK, said: "Breast screening saves lives, but it also has risks. One suggestion to try to maximise the benefit and reduce the risk is to tailor screening more effectively to people's risk of breast cancer, but more research is needed to show whether this approach will be effective or possible."

Calls for fundamental changes to deliver 'Forward View'

A new report from The King's Fund has called for fundamental changes in how health services are commissioned, paid for and regulated to deliver the vision set out in the *NHS Five Year Forward View*. The Forward View has been endorsed by all three main political parties and will set the agenda for NHS reform in the next parliament. However, without significant changes to policy and new approaches to leadership in the NHS, The King's Fund argues that it risks suffering the fate of previous policy documents which have failed to deliver on their ambitions.

The report argues that dealing with growing

financial and service pressures could crowd out the time and space needed to implement longterm changes to NHS services. It argues that delivering these changes will require leadership of the highest order, with much resting on whether the coalition of NHS bodies assembled behind the Forward View can be kept in place. The report makes the following

recommendations:

- An integrated approach to commissioning is needed, with a much greater emphasis on pooling budgets currently held by NHS England, clinical commissioning groups and local authorities.
- New ways of paying for NHS services should incentivise the delivery of integrated care instead of encouraging admissions to hospital as under the current system of Payment by Results.
- The Care Quality Commission's work should focus on assessing how well care is integrated across local systems of care rather than just inspecting individual NHS organisations.
- A national strategy for quality improvement and leadership development is needed to ensure the NHS becomes a 'learning organisation' focused on improving quality of care.



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Nationwide expansion of kidney disease project

A project which identifies people with progressive chronic kidney disease (CKD) earlier and improves access to treatment and patient outcomes has received £400,000 funding for expansion nationwide. The project is being led by the medical research charity Kidney Research UK, with funding from the Health Foundation.

The programme called ASSIST-CKD (ASSIST-Chronic Kidney Disease) looks for early signs of progressive kidney damage in patients by combining data from routine blood tests carried out by GPs and hospitals, using dedicated software to create graphs of kidney function over time.

It aims to help to reduce the burden of kidney disease and, through the early identification of patients with deteriorating kidney function, reduce the rate of late referral for dialysis, an important ambition for renal services across the UK.

Nearly 2 million people in the UK have been diagnosed with moderate-severe CKD by their GP and it is estimated that a further one million people remain undiagnosed. Early detection and treatment is critical and can help to delay or prevent the need for dialysis in some kidney patients.

Following the success of a smaller-scale project in the West Midlands, the ASSIST-CKD project has received Health Foundation funding for expansion across 12 to 15 locations nationwide, covering a population of between five and eight million people.

As part of the programme, kidney function graphs are assessed by a laboratory scientist or renal nurse to review the trends in patients' tests results. This identifies people with failing kidney function, to allow earlier intervention and treatment, often before the problem becomes too severe. Patients' GPs are then alerted with a prompt that further action may be needed, and advice on treatment options is provided. Resources are also provided to help improve patients' understanding of CKD, encouraging them to become involved in their care. They include practical advice on selfmanagement techniques and lifestyle changes which can help to slow down the progression of their kidney disease.

Since 2005, when the original communitywide CKD management system in the West Midlands first started, the number of patients starting dialysis per year at the Heart of England Foundation Trust (HEFT) has fallen by 16% compared to an increase of 8% in England as a whole. HEFT also has the lowest percentage of patients presenting late for dialysis in the UK.

Low breast density in mammography worsens prognosis

Very low mammographic breast density worsens the prognosis of breast cancer, according to a recent study from the University of Eastern Finland. Disease free survivals as well as overall life expectancies were significantly shorter in women

with very low density breasts in comparison to women with high density breast tissue. The lower the breast tissue density, the less fibroglandular tissue there is compared to fat tissue. In the future, these findings may prove significant for the assessment of breast cancer prognosis and treatment planning.



The study involved 270 breast cancer patients at Kuopio University Hospital, aged between 32 and 86 years. Out of the women with very low breast tissue density, 70.7% were alive at the end of the sixyear follow-up, whereas out of

women whose proportion of glandular tissue was higher than 10%, 87.7% were alive at the same time. Lower breast tissue density was also associated with more aggressive higher grade tumours.

The study was published in the journal, *European Radiology*.

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