New guidelines to improve end of life care

While a recent report has ranked end of life care in the UK as the best in the world, there are areas where care can be improved and made more consistent. Until recently, the Liverpool Care Pathway (LCP) was used to provide good end of life care. It was withdrawn however, following widespread criticism and a subsequent Government review that found failings in several areas. Among the criticisms were:

- There were no ways of reliably determining whether a person was in the last days of life.
- Drinking water and essential medicines may have been withheld or withdrawn.
- Examples of changes to treatment were carried out without forewarning.

As a result, NICE was asked to develop evidence-based guidelines on care of the dying adult. A new guideline aims to tackle these and other issues by providing recommendations for the care of a person who is nearing death no matter where they are.

It can be difficult to be certain whether a



person is dying, as the ways in which people deteriorate at the end of life can vary and depend on a person's condition. To help identify the last days of life, the guideline recommends that healthcare professionals should assess for changes in certain signs and symptoms. These include agitation, deterioration in level of consciousness and increasing fatigue and loss of appetite.

Healthcare professionals should be aware that appearance of these signs and symptoms might suggest that a person is dying, but improvements can occur suggesting that a person may be stabilising. People should be monitored for further changes at least every 24 hours, and the person's care plan should be updated accordingly.

Previously, the Parliamentary Health Service Ombudsman highlighted that poor communication was an important aspect in complaints over care at the end of life. The report said that healthcare professionals do not always have open and honest conversations with family members and carers that are necessary for them to understand the severity of the situation and the choices they will have to make.

Consequently, NICE recommends the dying

person, and those important to them should be given accurate information about their prognosis, an opportunity to talk through fears and anxieties, information about how to contact members of their care team, and opportunities for further discussion. Healthcare professionals should actively participate in shared decision-making on a person's end of life care, and a named lead healthcare professional should be made responsible.

Further recommendations cover individualised care, providing individual care plans, and ensuring that shared decision making is supported by experienced staff.

Among the criticisms levelled at the LCP were that too often it was being poorly implemented, leading to people becoming dehydrated. NICE recommends that the dying person should be supported to drink if they wish and are able to. In addition, they should be advised that while giving fluids in this ways may relieve some problems, they could cause others and that, in a person already near death, there is medical uncertainty whether giving assisted hydration prolongs or shortens a person's life.

Professor Sam Ahmedzai, Emeritus professor of palliative medicine and chair of the guideline development group, said "Until now we have never had guidelines in this country on how to look after people at the end of life. This evidence-based guideline provides a good overview of how to give good end of life care in any setting in the NHS."

For further information, visit: www.nice.org.uk

New guidelines on alcohol consumption and health

New guidelines for alcohol consumption, produced by the UK Chief Medical Officers, warn that drinking any level of alcohol increases the risk of a range of cancers. This is supported by a new review from the Committee on Carcinogenicity (CoC) on alcohol and cancer risk.

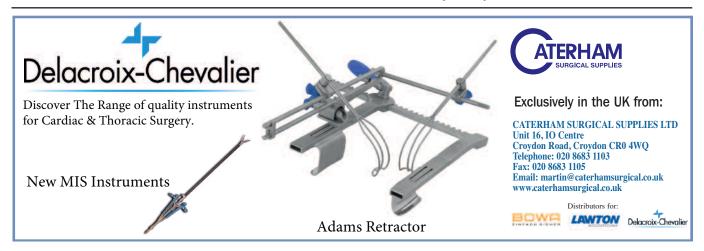
It is now known that the risks start from any level of regular drinking and increase with the amount being drunk, and the new guidelines are aimed at keeping the risk of mortality from cancers or other diseases low. The review also found that the benefits of alcohol for heart health

only apply for women aged 55 and over. The greatest benefit is seen when these women limit their intake to around five units a week, the equivalent of around two standard glasses of wine.

In addition, men should not drink more than 14 units of alcohol each week, the same level as for women. This equals six pints of average strength beer a week, which would mean a low risk of illnesses such as liver disease or cancer. The previous guidelines were 21 units for men and 14 units for women per week.

Another recommendation is not to 'save up'

the 14 units for one or two days, but to spread them over three or more days. People who have one or two heavy drinking sessions each week increase the risk of death from long-term illnesses, accidents and injuries. The guidelines for pregnant women have also been updated to clarify that no level of alcohol is safe to drink in pregnancy. The previous advice for pregnant women to limit themselves to no more than one to two units of alcohol once or twice per week has been removed to provide greater clarity as a precaution.



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Financial performance of acute trusts declines says National Audit Office

The financial performance of acute hospital Trusts has significantly declined in the last year and their financial position looks set to worsen in 2016, according to the National Audit Office. The deterioration in the financial position of NHS Trusts has been severe and worse than expected, with their £843 million deficit in 2014-15 representing a sharp decline from the £91 million deficit reported in 2013-14. Overall, the financial position of NHS bodies worsened in 2014-15, as NHS commissioners and NHS Trusts moved from a surplus of £722 million in 2013-14, to a deficit of £471 million.

The Government has committed to giving the NHS £8.4 billion more in this Parliament. The NAO said that it is not yet clear that the Department, NHS England, Monitor and the NHS TDA have the coherent plan that is needed to get Trusts' finances back on track and to close their estimated £22 billion gap between resources and patients' needs by 2020-21.

Despite recent efforts to work together,

interventions from the Department and its arm's-length bodies risk creating perceived or actual competing priorities for Trusts, according to the NAO report. One area where advice to Trusts could have created actual or perceived conflicts is on safe staffing.

The Department's interventions to reduce Trusts' spending on agency nursing staff, for example, came at a time when acute Trusts needed to recruit more nurses to meet safe staffing guidelines, and when the vacancy rate for permanent nursing staff was high.

The NAO warned that effective oversight by the Department and its arm's-length bodies will become harder if the number of Trusts in financial distress rises further. While the Department and its arm's-length bodies have taken steps to learn how Trusts could reduce costs, the wider use of this learning and how it will improve Trusts' finances overall is not clear. The report also said that making savings through the redesigned models of healthcare will be

challenging. The NHS' new models of care aim to integrate services around the needs of the patient, but are relatively new and untested.

Amyas Morse, head of the National Audit Office, commented: "Running a deficit seems to be becoming normal practice for acute Trusts. There is a risk that poor financial performance is seen as the least worst option compared with poor healthcare provision. The Department, NHS England, Monitor and the NHS TDA must take a rounded view of how to improve Trusts' finances.

"The Government's commitment to give the NHS more funding, with almost half of this coming upfront, could be a significant step towards financial sustainability, if this funding can be devoted to improving the financial position of Trusts rather than dealing with new costs.

"Continued demand for healthcare services means that the pressure on acute Trusts will not go away. Until there is a clear pathway for Trusts to get back to financial stability, we cannot be confident that value for money will be achieved."

Theatre and sterile services event

The National Performance Advisory Group (NPAG) has announced that the Theatres, Sterile

Services & Decontamination Conference is taking place on 16 March at Drayton Manor Theme Park. The conference and exhibition is aimed at NHS managers and leads in theatres, sterile services and decontamination who strive for better patient safety and experience.

Advice and support will be shared on how to deliver cost savings and prepare for CQC, to managing change in your department. The agenda now includes a session by David Perrett, professor of bio analytical science, Barts & The London School of Medicine, entitled: 'Wet or Dry – Post Operation Instrument Treatment'.

The conference agenda is being coordinated by Jo Kerrigan, facilitator of both the NPAG Sterile Services Best Value Group and the Operating Theatres Benchmarking Group. For the full agenda, visit: www.npag.org.uk.

Contact Marie to book your place: marie.cherry@npag.eastamb.nhs.uk. Book before the 16th February and receive the early bird rate of just £125.

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First fully 'pod-fitted bay' at the Royal Stoke University Hospital

The Royal Stoke University Hospital is the first NHS hospital with a fully Pod-fitted bay. The hospital's Elderly Care Unit has increased its single occupancy room capacity following the introduction of four Bioquell Pods. Installed in one of the unit's bays, this technology will alleviate bed-blocking and increase patient flow through the ward.

For the nursing staff at Royal Stoke, the Pods give the option to quickly isolate patients suspected of having an infection. This rapid action can significantly prevent outbreaks such as norovirus or *C. difficile* from spreading.

They also provide the teams with optimal visibility for better care due to the large clear panel windows.

The new Pods have been shown to be capable of being fully bio-decontaminated in under 50 minutes. This is helping to improve the time between the patient's discharge and the safe admission of the next patient given the 'deep clean' that has taken place and avoids the need to empty the whole ward. The Royal Stoke University Hospital is also using Bioquell's hydrogen peroxide vapour (HPV) bio-decontamination technology.

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Audit to reduce prescribing errors

Patients on 10 or more prescribed drugs are at greater risk of prescribing errors. An audit has been conducted at one of the largest general practices in North London serving a population of 20,000 patients to determine the extent of this so-called 'polypharmacy'.

Doctors hope to identify patients whose prescriptions could be optimised to decrease their risk of adverse events with a view to empowering and encouraging other healthcare professionals to also think about when it is appropriate to stop medication. Many people, especially elderly people, need multiple medications for several concurrent conditions.

"Data shows that patients can handle up to 10 drugs but problems are much more likely to occur with more than 10. No one is quite sure why. It could be because patients forget, doctors may make errors when patients are repeatedly admitted to hospital, or patients may simply ignore their medications," said Selma Audi, a student from St George's Hospital, London.

As well as a 47% increased risk of error from prescribing 10 or more prescriptions, there is also an increased risk of adverse effects due to the drugs interacting with each other.

Speaking at Pharmacology 2015, Ms Audi explained that she carried out an audit of data for 584 patients at the James Wigg GP practice in Camden, each receiving ten or more prescriptions – a total of 18,289 prescriptions. Of these, 427 patients (254 female and 173 male) were currently on repeat prescriptions. She then investigated these 5,321 prescriptions.

Most of the people over 50 years of age were being repeatedly prescribed analgesics. In patients in the 50-74 age range, drugs for diabetes



accounted for the second largest category of repeat prescriptions. Just over 20% of all prescriptions were for heart and circulatory disease in those over 75, with analgesics being the largest category of repeat prescriptions. Because of the high rate of heart disease in the elderly, this may reflect appropriate polypharmacy and represent best practice prescribing. However, the scale of analgesic use in older people is potentially harmful.

"Most clinical trials are conducted in younger people with single diseases, not multiple diseases," said Ms Audi, health economist and a medical student. "We simply do not have enough information on the cumulative effects of multiple drugs, particularly in the elderly," she told delegates at the British Pharmacological Society's annual meeting, in London.

The next phase is to establish best practice and the threshold at which excessive polypharmacy

might cause adverse reactions. To do this, doctors will invite priority patients for an extended appointment. During this consultation, the patient's needs and treatment regime will be reviewed, and their compliance and understanding of the effects of the different medication will be checked. They will also consider de-prescribing drugs that are no longer beneficial and may indeed causing harm.

"Patients will be asked whether they prefer taking, for example, a tablet or liquid form of their medicine and also whether they need further help with taking their medication. For example, are the bottles easy to open? We will also establish if they can be directed to their pharmacist for further assistance," she said.

In the future, the team hopes this approach will improve patient safety and satisfaction with care.

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New human factors group aims to reduce errors

Scientists are embarking on a new approach to overhaul the system for safe research and use of medicines which will help tackle medication errors. Announced at at Pharmacology 2015, held in London, the Chartered Institute of Ergonomics and Human Factors has established a group with organisational scientists, the pharmaceutical sector and healthcare professionals to examine how society can improve the system for safe and effective medicine.

In a review of incidents reported to the National Reporting and Learning System (NRLS) over six years between 2005 to 2010 there were 86,821 medication incidents reporting actual patient harm, with 822 (0.9%) resulting in death or severe harm.

"We know that errors and adverse reactions from medicines can cause distressing symptoms, loss of function and loss of income. This can cause profound distress to patients and their carers, and contribute to the financial burden for the NHS," said Dr Brian Edwards from NDA Regulatory Science.

The NHS has established a Never Events list of serious incidents that should be wholly preventable such as (preventable) low blood sugar following an unintentional overdose of insulin. Traditionally investigations of how to reduce harm from unsafe use of medicines have focused on healthcare professionals within the NHS and not how the broader pharmaceutical system has been working.

Speaking at the British Pharmacological Society's annual meeting, Dr Brian Edwards, an expert in safety of medicines, explained that there is no agreed systematic approach involving all parties including the NHS, the pharmaceutical sector, patient groups, lawyers and others, about how we should optimise the way medicines are used to contain the risk of errors at many levels.

This systematic approach begins early in drug development with drug design and continues through product naming, packaging and labelling. Some of the names of medicines are similar and therefore it is easier to make mistakes. Drug labelling describes the drug and proper storage, preparation, dispensing, administration and tracing throughout the supply chain. However, it is not known whether this happens consistently and safely.

"We have evidence to demonstrate how humans can perform more effectively in complex systems, but this is not being applied systematically for medicines with so many people and professions being involved who work in their own silos." he said.

The newly-formed Pharmaceutical Human Factors and Ergonomics Group will examine all aspects that influence human behaviour throughout the pharmaceutical system that ultimately impact prescribing and administering medications, for example, leadership and decision-making, the work situation, communications and personality.

Charity warns of spiralling cancer cases due to obesity

Almost 700,000 new cases of cancer linked to being overweight or obese could be diagnosed in the UK during the next 20 years, according to a new report from Cancer Research UK and the UK Health Forum. The report also predicts, for the first time, the alarming impact obesity will have on cancer in the UK based on current trends. If they continue, almost three in four adults will be overweight or obese by 2035. Even more concerning is the prediction that more people will be obese than overweight by 2030.



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The report estimates that rising rates of obesity and being overweight in the UK could lead not only to 700,000 new cancer cases, but also millions of new cases of type 2 diabetes, coronary heart disease and stroke. This would cost the NHS an additional £2.5 billion a year by 2035 over and above what is already spent on obesity related disease.

On a positive note, the study shows that small changes can have dramatic impacts. Just a one per cent shift in the number of people going from the overweight or obese category to the healthy weight category every year could prevent more than 64,000 cancer cases over the next 20 years and save the NHS £300 million in 2035 alone.

To tackle this obesity epidemic, Cancer Research UK is calling on the Government to introduce a 9pm watershed ban on TV advertising of junk food as well as a 20p per litre tax on sugary drinks as part of a comprehensive children's obesity strategy.

NEWS IN BRIEF

New screening recommendations

Following a recent meeting, the UK National Screening Committee (UK NSC) has made a number of new recommendations, including:

- The faecal immunochemical Test (FIT) should replace the current first test used in the NHS Bowel Cancer Screening Programme.
- Non-invasive prenatal testing (NIPT) should be introduced as an additional test into the NHS Fetal Anomaly Screening Programme (FASP) as part of an evaluation.
- Currently the NHS Cervical Screening Programme uses cytology testing to look for abnormal cells. Evidence suggests that screening for HPV first will be a more effective way to let women know whether they are at risk of developing cervical cancer.
- People with diabetes, at low risk of sight loss, need only to attend eye screening tests every two years rather than annually, after evidence showed this was safe.

Cancer survival improves for children

The rate of children dying from cancer has dropped by 24% in the last decade, according to the latest figures published by Cancer Research UK. Death rates for all cancers in children aged 14 and under have fallen from around 30 deaths per million in 2004 to almost 23 deaths per million today.

Much of this success is due to tackling childhood cancers by combining a number of different chemotherapy drugs. Cancer Research UK played a key role in the clinical trials that proved the benefits of these combined treatments, including a large international trial that has helped lead to liver cancer death rates falling by 26% in the last decade. Research to improve imaging and radiotherapy techniques is also playing its part.

Obesity increases childhood risk of VTE

Researchers at Wake Forest Baptist Medical Center, in the US, have found an association between obesity and the formation of blood clots in the veins of children and adolescents. While obesity is a well-established risk factor for venous thromboembolism (VTE) in adults, previous studies in paediatric populations have yielded mixed results.

The Wake Forest Baptist investigation, however, found that obesity as determined by body mass index was a statistically significant predictor of blood clot formation in juveniles. The research is published the journal *Hospital Pediatrics*.

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Breakthrough for video-pill cancer imaging

Researchers from the University of Glasgow have found a way to make swallowable cameras more effective at detecting cancers of the throat and gut. In recent years, tiny sensing systems small enough for patients to swallow have proven to be a valuable clinical alternative to more intrusive imaging methods such as endoscopes.

Until now, the systems have relied on illuminating the patient's gut using a small light source, restricting clinicians to conclusions based on what they can see in the spectrum of visible light. In a paper published in the journal *Scientific Reports*, researchers from the University's School of Engineering describe how they have used fluorescent light for the first time to expand the diagnostic capabilities of the video-pill.

Flurorescence imaging is already a powerful diagnostic tool in medicine, capable of clearly identifying in patients the rich blood supplies which support cancers and help them to grow, but which can be missed by examination under visible light. However, past fluorescence imaging technologies have been expensive, bulky and consume substantial power, confining the technique to laboratories and hospital examination rooms. Using an advanced semiconductor single-pixel imaging technique, the researchers have managed to create flurorescence imaging in a small pill form for the first time.

The project was led by Professor David Cumming at the University of Glasgow. Research associate, Dr Mohammed Al-Rawhani said: "The system we have developed is small enough and power efficient enough to image the entire human gastrointestinal tract for up to 14 hours.

"We have confirmed in the lab the ability of the system to image fluorescence 'phantoms' – mixtures of flavins and haemoglobins which mimic closely how cancers are affected by fluorescence in parts of the body like the intestines, the bowel and the oesophagus. The system could also be used to help track antibodies used to label cancer in the human body, creating a new way to detect of cancer.

"It is a valuable new technique which could help clinicians make fewer false positives and negatives in cancer diagnosis, which could lead to more effective treatment in the future."

Professor David Cumming, the University of Glasgow's chair of electronic systems, said: "We have played an important role in developing the technology behind video-pill systems, and this is an exciting new development, which offers a valuable new resource for gastrointestinal imaging.

"There's still some way to go before it will be ready for commercial production and clinical use, but we are in early talks with industry to bring a product to market. We are also interested in expanding the imaging capabilities of videopill systems to new areas such as ultrasound in the near future."

The paper is available at www.nature.com/articles/srep18591

Screening could cut mortality by 20%

Results from The UK Collaborative Trial for Ovarian Cancer Screening (UKCTOCS) demonstrate that screening may reduce ovarian cancer mortality by an estimated 20% after a follow up period of up to 14 years. The study authors are now planning to conduct three more years of follow up to establish the full impact of ovarian cancer screening.

"The evidence from UKCTOCS suggests that carefully conducted screening using a multimodal strategy detects ovarian cancer sufficiently early to alter the natural history of the disease and reduce mortality," said co-principal investigator Professor Ian Jacobs, president and vice-chancellor of University of New South Wales Australia and Honorary Professor at University College London (UCL), who co-invented the Risk of Ovarian Cancer algorithm (ROCA) in 1996, which was used as part of the multimodal screening arm of this study.

"We are excited and encouraged by these results, demonstrating an estimated mortality reduction attributable to ovarian cancer screening of 15% to 28%. Further follow up in UKCTOCS will provide greater confidence about the precise reduction in mortality which is achievable."

The UKCTOCS is a collaborative research initiative, coordinated by UCL, that involved 202.638 women: across 13 centres.

First clinical guidelines for chronic fungal lung infections

The world's first guidelines for chronic fungal lung infections for doctors and laboratories have been published by the European Respiratory Society (ERS) and the European Society of Clinical Microbiology and Infectious Diseases (ESCMID). Published in the *European Respiratory Journal*, these new guidelines describe the important features of this disease and provide comprehensive treatment recommendations.

Chronic pulmonary aspergillosis (CPA) is a subtle and insidious problem in patients with already damaged lungs. It kills about 80% of sufferers over five years, unless diagnosed and treated with long-term antifungals. Across Europe, an estimated 240,000 people have CPA, and worldwide around three million. The late stages of CPA (aspergilloma) are familiar to respiratory specialists, but the early features are often missed.

Major improvements in understanding this debilitating and ultimately fatal disorder have resulted from research undertaken in Europe, India and Japan over the last 10 years. However,



no therapies are approved by the European Medicines Agency (EMA) for treatment, and very few diagnostic tests and therapies have been compared. In many parts of the world, the basic tests required are not yet available.

Professor David Denning of the University of Manchester, who led the CPA guidelines group, said: "The UK National Health Service recognised the challenges posed by these patients by setting up the National Aspergillosis Centre and its associated laboratory the Mycology Reference Centre in 2009. The

experience gained from seeing hundreds of patients has contributed to the quality of care, although much more research and new oral antifungal drugs are both required to reduce the marked disability caused by CPA."

ERS guidelines director, Dr Marc Miravitlles, commented: "We welcome the publication of this guideline, which provides key insights into the main features of the disease and treatment recommendations. By establishing this expert consensus on the topic, we aim to improve the early diagnosis of CPA and increase recognition of the condition to ultimately improve outcomes for patients." The guidelines are a product of a two-year collaboration between ESCMID and ERS. In parallel to these CPA recommendations, ESCMID is currently developing wider guidelines for invasive aspergillosis in general, which will be published in due course. The latter are developed by Professor Andrew Ullmann of the Julius Maximilian University of Würzburg, chairman of ESCMID's fungal infection study group EFISG. For further information, visit: www.escmid.org

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