

Lung cancer multidisciplinary team improvement 'too slow'

Poor progress in some areas of multidisciplinary team working is hindering patient treatment and survival, says a new report by lung cancer experts.

According to the UK Lung Cancer Coalition, lung cancer

multidisciplinary teams are not performing well in some key areas and large numbers of patients are still not being diagnosed early enough.

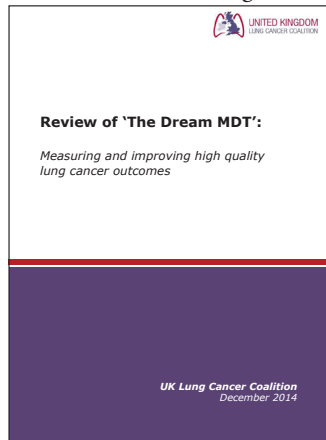
'The number of patients being diagnosed with stage IIIB or IV lung cancer varies from 11% to 76% across England,' says Dr Mick Peake, Chair of the UK Lung Cancer Coalition's Clinical Advisory Group and Clinical Lead, National Cancer Intelligence Network and National Lung Cancer Audit. 'Such a high variation cannot continue if lung cancer patients are to be given the best possible chances of receiving appropriate and effective treatment.'

As well as tracking progress made since the launch of the 'The Dream MDT for lung cancer', published in 2012, the report, which can be downloaded from www.uklcc.org.uk, maps out 12 new priorities for the future.

'Multidisciplinary teams are at the heart of delivering improved outcomes for lung cancer patients, yet some aspects of multidisciplinary team working still require dras-

tic improvement across the country,' says Mr Richard Steyn, Chair of the UK Lung Cancer Coalition and Consultant Thoracic Surgeon and Associate Medical Director, Surgery, at the Heart of England NHS Foundation Trust.

He concluded: 'Only through continual monitoring, evaluation and service improvement will all patients receive the treatment they both need and deserve.'



Bisphosphonates may help prevent endometrial cancer

Data from the National Cancer Institute's Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial were used to determine the effect of exposure to bisphosphonate on the incidence of endometrial cancer (Alford et al, 2014). In year 5, all participants were asked to complete a self-administered supplemental questionnaire that included questions regarding bone medication use.

Women without a cancer diagnosis at this time who were currently or had formerly used a nitrogenous bisphosphonate (ever-use) were compared with women never exposed to an nitrogenous bisphosphonate. Women with missing information were excluded as were those who had had a hysterectomy. A total of 29 254 women were included in the analysis.

The incidence rate for endometrial cancer among women exposed to nitrogenous bisphosphonates was 8.7 per 10 000 person-years vs 17.7 per 10 000 person-years among never-exposed women (rate ratio = 0.49; 95% confidence interval = 0.30–0.80). The effect was similar after adjusting for covariates, with a hazard ratio of 0.56 (95% confidence interval = 0.34–0.93).

Use of nitrogenous bisphosphonates may have a protective effect on the incidence of endometrial cancer. However, further studies are needed to include other potential confounders and a larger sample.

Alford SH, Rattan R, Buekers TE, Munkarah AR (2014) Protective effect of bisphosphonates on endometrial cancer incidence in data from the Prostate, Lung, Colorectal and Ovarian (PLCO) cancer screening trial. *Cancer* (doi: 10.1002/cncr.28952)

Mobility disability can contribute to pregnancy complications

Little is known about how functional impairments might affect the pregnancies of women with mobility disability. A qualitative descriptive analysis was undertaken by telephone interviews with women from 17 USA states. This explored complications that arise during pregnancy specifically related to physical functional impairments of women with significant mobility disabilities (Iezzoni et al, 2014).

The sample comprised 22 women with significant mobility difficulties who had delivered babies within the previous 10 years. Most participants were recruited through social networks.

The women's mean age was 34.8 years (standard deviation 5.3 years). Most were white, well-educated and in the higher income brackets; eight women had spinal cord injuries, four cerebral palsy, and ten had other conditions; 18 used wheeled mobility aids; and 14 had caesarean deliveries (eight of which were elective).

Impairment-related complications during pregnancy

included falls, urinary tract and bladder problems, wheelchair fit and stability problems that reduced mobility and compromised safety, significant shortness of breath, sometimes requiring respiratory support, increased spasticity, bowel management difficulties, and skin integrity problems (this was rare, but many women greatly increased skin monitoring during their pregnancy to prevent pressure ulcers).

As well as other pregnancy-associated health risks, women with mobility disabilities appear to experience problems relating to their functional impairments. Preconception planning and in-depth discussions during early pregnancy could potentially help women with mobility disabilities to anticipate, address and hopefully prevent these difficulties.

Iezzoni LI, Wint AJ, Smeltzer SC, Ecker JL (2014) Effects of disability on pregnancy experiences among women with impaired mobility. *Acta Obstet Gynecol Scand* (doi: 10.1111/aogs.12544)

Depression more common in patients with dementia cared for in the community

A study of people with severe dementia in eight EU countries (Giebel et al, 2014) found that those living in long-term care homes are less likely to suffer from depressive symptoms than those living in the community.

Researchers studied 414 people with severe dementia along with their carers in England, Estonia, Finland, France, Germany, the Netherlands, Spain and Sweden. The study

Professor David Challis, Personal Social Services Research Unit, University of Manchester, Manchester



gathered information on quality of life, activities of daily living such as bathing, feeding and dressing and presence of depressive symptoms using standardized measures.

In the groups studied, 37% of the 217 people living in the community showed signs of depression compared to 23% of the 197 in care homes. It is one of the few studies comparing similar groups of people living at home and in nursing homes.

Professor David Challis, who led the study, said: 'Despite the differences between the countries involved, the pattern of depression observed in the community-dwelling group was consistent.

'In addition this difference may be partly explained by the responses received from carers. Often, relatives of people with dementia are more distressed

by symptoms of depression than professional care workers, so this may have influenced their ratings on the depression measure.'

The study also looked at rates of antidepressant prescribing and found that England and Spain had the highest rates. Finland (15%) and the Netherlands (21%) had the lowest rates of depression in people with severe dementia, compared to 23% overall.

Professor Challis concluded: 'By studying a number of different countries you can gain insights into different ways of meeting needs.'

Giebel CM, Sutcliffe C, Renom-Guiteras A et al (2014) Depressive symptomatology in severe dementia in a European sample: prevalence, associated factors and prescription rate of antidepressants. *Int Psychogeriatr* 11: 1–11 (doi: 10.1017/S1041610214002610)

App offers advice on preventing falls in the home

The free Fallcheck app provides information on potential fall hazards in the home alongside easy to follow instructions on how to minimize risk and so prevent accidents happening. The app was developed by a team from Coventry University's Health Design & Technology Institute and its Centre for Excellence in Learning Enhancement.

Tamoxifen reduces breast cancer rates by nearly a third for 20 years

Extended analysis of the IBIS trial (doi: 10.1016/S1470-2045(14)71171-4) shows a long-term protective effect of 5 years of tamoxifen treatment in preventing breast cancer in the next 20 years after treatment has stopped.

Gene mutation increases risk of medulloblastoma in children with Gorlin syndrome

Research shows that mutations in the *SUFU* gene cause Gorlin syndrome (doi: 10.1200/JCO.2014.58.2569). Children with this change are 20 times more likely to develop medulloblastoma than those with a mutation in *PTCH1*.

Laparoscopic surgery for bladder cancer leads to good long-term cancer control

Long-term survival rates following laparoscopic surgery for bladder cancer are comparable to those of open surgery (Albisinni et al, 2014). The findings, from the largest study to date with long-term follow up after this type of surgery, indicate that prospective randomized trials comparing these two bladder cancer surgeries are warranted.

The European Association of Urology section of Uro-technology has been building a large database of laparoscopic radical cystectomy procedures performed across Europe. When exploring this database, an international

team led by Dr Simone Albisinni and Dr Roland van Velthoven of the Université Libre de Bruxelles in Belgium, found that laparoscopic radical cystectomy can lead to reliable cancer control even many years after surgery. After 5 years, 66% of patients had no signs of bladder cancer recurrence, and among those followed for 10 years, 62% had no signs of recurrence.

Although there is growing interest in robotic-assisted radical cystectomy, many hospitals in Europe do not own a robot. Laparoscopic equipment, on the other hand, is more widely available.

'These data represent crucial information for urologists who are performing laparoscopic surgery, or who wish to implement laparoscopic cystectomy in their departments,' said Dr Albisinni, 'In spite of the technical difficulty and the need for a learning curve, these findings support the use of a laparoscopic approach for the management of bladder cancer.'

Albisinni S, Rassweiler J, Abbou C et al (2014) Long-term analysis of oncological outcomes after laparoscopic radical cystectomy in Europe: results from a multicentre study by the European Association of Urology (EAU) section of Uro-technology. *BJU Int* (doi: 10.1111/bju.12947)

Risk of nighttime gout attack more than twice that in daytime

The risk of acute gout attacks is more than two times higher during the night or early morning hours than it is in the daytime. The Boston Online Gout Study, a case-crossover study that investigated triggers for gout attacks from 2003 to 2013, confirms that nocturnal attacks persist even among those who did not consume alcohol and had a low amount of purine intake during the 24 hours before the gout attack (Choi et al, 2014).

Acute gout flares are triggered by the crystallization of

uric acid within the joints, and experts believe these flares are 'among the most painful events experienced by humans'.

The research team recruited 724 gout patients who were followed for 1 year via the internet. Participants were asked to provide the date and hour that a gout attack occurred, as well as answering questions about their symptoms, medication use, and certain risk factors (such as alcohol use and seafood consumption) during the 24 and 48 hours preceding the gout flare.

On average, participants were 54 years of age and were primarily white (78%) men (89%), and more than half were college educated. During the gout flare or the time between attacks (called 'intercritical periods'), roughly 68% of subjects consumed alcohol, 29% took diuretics, 45% used allopurinol, 54% used non-steroidal anti-inflammatory drugs and 26% took colchicine.

Findings indicate that participants experienced 1433 gout attacks – 733 overnight (midnight to 7:59 am), 310 in



Dr Hyon Choi, Massachusetts General Hospital and Harvard Medical School, Boston, MA

the daytime (8:00 am to 2:59 pm), and 390 in the evening (3:00 pm to 11:59 pm) during the 1-year study period. The risk of a gout flare was 2.4 times higher overnight and 1.3 times higher in the evening compared to daytime hours.

This risk persisted even among those with no alcohol intake and low purine intake during the 24 hours before the gout attack. These associations remained after accounting for sex, age, body mass index, and use of diuretics, gout medications and non-steroidal anti-inflammatory drugs.

'It is speculated that lower body temperature, nighttime dehydration, or a nocturnal dip of cortisol levels may contribute to the risk of gout attacks at night,' explained lead author Dr Hyon Choi, from Massachusetts General Hospital and Harvard Medical School (formerly at Boston University School of Medicine), 'despite the possibility of a nighttime link to gout, no study prior to our current investigation has looked at the association between gout attack risk and the time of day.'

Choi HK, Niu J, Neogi T, Chen C, Chaisson C, Hunter D, Zhang Y (2014) Nocturnal risk of gout attacks. *Arthritis Rheumatol* (doi: 10.1002/art.38917)

Future priorities for mesothelioma research decided by clinicians, patients and carers

Research into mesothelioma has been highlighted as a priority by the National Institute for Health Research. This rare and often fatal form of cancer has very poor survival rates.

The mesothelioma Priority Setting Partnership was set up through the James Lind Alliance and funded by the National Institute for Health Research.

Data were collected through a survey asking patients, carers and health professionals for their questions around the diagnosis, treatment and care of mesothelioma. These were prioritized at a workshop attended by patients and carers and their representatives, and health professionals.

From a list of 52 verified unanswered questions, available to view at www.psp.nihr.ac.uk/mesothelioma/results, 30 were taken to the final priority setting workshop where the following 'top 10' most important questions about

mesothelioma for researchers to answer were agreed:

1. Does boosting the immune system improve response and survival rates for mesothelioma patients?
2. Can individualized chemotherapy be given to mesothelioma patients based on predictive factors?
3. What is the best way to monitor patients with diffuse pleural thickening and a negative biopsy who are considered to have a high risk of developing mesothelioma?
4. What is the best second line treatment?
5. Which is the most effective current treatment for ascites in patients with peritoneal mesothelioma?
6. What are the relative benefits of immediate standard chemotherapy compared to a watch and wait policy?
7. What is the best follow-up strategy post-treatment to identify and treat emerging side effects?

8. Is there a role for intrapleural immunostimulants alongside other treatments?
9. Does an annual chest X-ray and/or computed tomography scan and medical examination in high-risk occupations lead to earlier diagnosis of mesothelioma?
10. What, if any, are the benefits of pleurectomy compared to no surgery, and which patients might benefit?

Ian Jarrold, Head of Research at the British Lung Foundation, sat on the steering group and commented: 'This work represents a great step forward in understanding the mesothelioma research questions that really matter to patients, carers, their families and clinicians. Identifying mesothelioma treatment uncertainties is crucial to developing strategic priorities for research. This in turn will lead to improvements in the treatment and care of this devastating disease.'

Enquiry highlights inconsistencies in care for babies with congenital diaphragmatic hernia

The Maternal, Newborn and Infant Clinical Outcome Review Programme (MBRRACE-UK) looks at how care for mothers and babies can be improved (Field et al, 2014).

In its first perinatal report, the group examined congenital diaphragmatic hernia, a condition which affects up to 400 pregnancies annually in the UK.

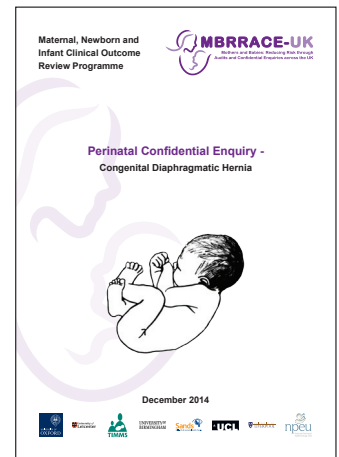
In this condition part of the diaphragm does not form which can lead to a number of complications, most common-

ly poor lung development. Ultimately around half of these babies do not survive and for those that do their management usually involves care from a range of specialists both before and after birth.

The expert enquiry found, even though there was no evidence that the outcome for the mother or baby was affected, there was a significant degree of inconsistency in how care was delivered to these mothers and babies in relation to every aspect of the care pathway.

In most parts of the UK the service was not patient centred, although alternative models providing a clear care pathway for congenital diaphragmatic hernia cases were identified in a small number of locations.

There was wide variation across the UK in terms of how women and babies diagnosed with congenital diaphragmatic hernia were managed, particularly in relation to cases diagnosed antenatally. There was a lack of consistency in the information provided regarding



prognosis both in terms of content and also how the information was provided to parents.

Follow-up arrangements showed very marked differences between centres, and documentation of some aspects of care was frequently poor. However, despite the variation in practice most cases received a high level of senior medical and nursing input throughout their course.

Key recommendations following the enquiry include greater focusing of the acute care of affected mothers babies on a limited number of centres in order to facilitate the greater development of all aspects of the specialist expertise required, and development of a service specification for congenital diaphragmatic hernia to ensure the service becomes consistent and patient-centred.

Professor David Field, Professor of Neonatal Medicine, University of Leicester, stated: 'The current way in which the care for these babies is organized appears to have hindered the establishment of a patient centred care pathway and the establishment of ongoing research and development.'

Field D, Hyman-Taylor P, Bacon C and Draper ES on behalf of MBRRACE-UK (2014) *Perinatal Confidential Enquiry – Congenital Diaphragmatic Hernia*. The Infant Mortality and Morbidity Group, Department of Health Sciences, University of Leicester, Leicester

Bronchoscopic lung volume reduction treatment effective for patients with severe emphysema

Bronchoscopic lung volume reduction coil treatment is safe and clinically effective in patients with severe emphysema in the short term; however, long-term safety and effectiveness has not been evaluated. Hartman et al (2014) investigated the long-term safety and effectiveness of lung volume reduction coil treatment in patients with severe emphysema.

Thirty-eight patients with severe emphysema (median age 59 years, forced expiratory volume in 1s 27% predicted) who were treated in lung volume reduction coil clinical trials were invited for a voluntary annual visit. Safety was evaluated by chest X-ray and recording of adverse events, and efficacy by pulmonary function testing, 6-minute walk distance and questionnaires.

Thirty-five patients visited the hospital 1 year, 27 patients

2 years and 22 patients 3 years following coil placement. No coil migrations were observed on X-rays. At 1-year follow up, all clinical outcomes significantly improved compared with baseline. At 2 years, residual volume % predicted, modified Medical Research Council and the St George's Respiratory Questionnaire score were still significantly improved.

After 3 years, a significant improvement in modified Medical Research Council score remained, with 40% of patients reaching the 6-minute walk distance minimal important difference, and 59% the St George's Respiratory Questionnaire minimal important difference.

Follow-up of the patients who were treated with lung volume reduction coils in the pilot studies showed that the coil treatment is safe with no late pneumothoraces, coil

migrations or unexpected adverse events.

Half of the patients continued to improve their lung function capacity, feelings of breathlessness, and overall quality of life after 3 years, with no unexpected safety issues.

'This trial reports only the first ever treated patients in the world with this device,' highlighted lead author Dr Jorine Hartman from the Department of Pulmonary Diseases, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands. Future studies in larger numbers of patients are needed to identify those who will benefit from this treatment.

Hartman JE, Klooster K, Gortzak K, ten Hacken NHT, Slebos D-J (2014) Long-term follow-up after bronchoscopic lung volume reduction treatment with coils in patients with severe emphysema. *Respirology* (doi: 10.1111/resp.12435)