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effective management of osteoarthritis
Osteoarthritis has major implications on the health system.

Diabetes-induced peripheral neuropathy:
A treatment review
Diabetes-induced peripheral neuropathy (DPN) affects a large percentage of patients and significantly increases the cost of medical care.

Memantine slows cognitive decline from whole brain
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In the Medicine
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Notes: The above articles are subject to change without prior notice.

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Osteoarthritis has major implications on the health system and is a common ailment, especially in the growing elderly population. It is prudent to recognise this condition, so effective management can be deployed to avoid excessive pain and potential deformities, and improve quality of life.

Diabetes-induced peripheral neuropathy: A treatment review

Diabetes-induced peripheral neuropathy (DPN) affects a large percentage of patients and significantly increases the cost of medical care. Multiple mechanisms regarding the pathogenesis of DPN have been proposed but currently treatment is directed toward symptomatic relief for the patient.
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Zoledronic acid prevents fractures in men with brittle bones

Sildenafil citrate improves sexual function after prostate radiation

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Pelvic floor muscle training may not prevent urinary incontinence after pregnancy

Tight glycemic control no help immediately after kidney transplant

Heart failure, cardiomyopathy risk with trastuzumab “higher than we think”

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Heart attacks more common among the unemployed
Zoledronic Acid Prevents Fractures in Men with Brittle Bones

NEW YORK (Reuters Health) - Zoledronic acid, already known to prevent fractures in women, appears to also reduce the risk of fracture among men by 67%, according to a large new study.

The drugs commonly given to women "had only been tested in men in small studies looking at surrogate end points like bone density. They showed a treatment effect. This study looked at fracture reduction," Dr. Steven Boonen of Katholieke University Leuven in Belgium, told Reuters Health.

"What's remarkable is the result you see with zoledronic acid in men is virtually identical to what you see in a sample of women," said Dr. Boonen, the chief author of the New England Journal of Medicine study, published November 1. "So we can use the drugs we've been developing in women with the same confidence in men. And that's true for safety."

The study was financed by Novartis, which sells the drug under the brand names Aclasta and Reclast.

Researchers gave a placebo or a single 5 mg intravenous infusion of the drug to 1,199 volunteers who also received 1,000 to 1,500 mg of calcium and 800 to 1,200 IU of vitamin D daily. The test ran from December 2006 to October 2010.

After 24 months and two annual infusions, the rate of vertebral fracture was 1.6% for the men who received zoledronic acid versus 4.9% for placebo recipients (p = 0.002).

The risk of death or side effects did not differ between the two groups.

However, while two men getting placebo had a heart attack (0.3%), nine men (1.5%) getting the drug did (p = 0.03). The researchers said none were considered to be related to zoledronic acid.

Side effects among drug recipients included fever, muscle pain, headaches, and overall flu-like symptoms. “They usually disappear 48 hours after an infusion,” said Dr. Boonen.

When the zoledronic acid recipients did develop a fracture, it tended to be less severe. Drug recipients also lost less height over time -- just 2.2 mm versus 4.5 mm over two years for placebo (p = 0.002).
WHO SHOULD BE SCREENED?

The Endocrine Society recommends that all men age 70 and up should receive a bone density test. Younger men, down to age 50, should be tested earlier if they have risk factors such as a history of smoking, low body weight, and prior fractures.

However, the U.S. Preventive Services Task Force, a government-sponsored advisory panel, says there is not enough evidence to recommend for or against such testing in men.

Still, Dr. Boonen said he hopes the study will give doctors confidence to use the treatment in men, saying, “Underdiagnosis and undertreatment are even more of a problem in men than women.”

“Of the 10 million Americans with osteoporosis, 2 million are men. Of the 2 million fractures that occur in this country every year, about 600,000 or 30% are in men,” Dr. Nelson Watts, who led a task force of the Endocrine Society that recently released guidelines for treating males, told Reuters Health.

Dr. Watts, director of the Mercy Health Osteoporosis and Bone Health Services in Cincinnati, said, “Men don’t recover from fractures as well as women. The mortality after a hip fracture among women is about 20% and in men it’s about double that.”

Medicare covers such tests for women, said Dr. Watts, who was not involved in the new research, but men often have to pay out of pocket.

By Gene Emery


SILDENAFIL CITRATE IMPROVES SEXUAL FUNCTION AFTER PROSTATE RADIATION

NEW YORK (Reuters Health) - Giving sildenafil citrate before, during, and after radiotherapy for prostate cancer improves patients’ overall sexual function, researchers said Monday in Boston at the 54th Annual Meeting of the American Society for Radiation Oncology (ASTRO).

This is the first randomized trial to explore whether the phosphodiesterase type 5 inhibitor preserves erectile function after prostate cancer radiotherapy, lead author Dr. Michael J. Zelefsky from Memorial Sloan-Kettering Cancer Center in New York City told Reuters Health -- “and the findings indicate better sexual function outcomes with the drug therapy,” he said.

Some studies in surgery patients using “preventative” daily sildenafil have shown some effect in improving sexual function long-term, Dr. Zelefsky said.

“In addition, it would appear that the cause of erection loss among men who get radiotherapy for prostate cancer is related to decreased blood flow to the nerves which control erectile function. Sildenafil is known to be effective for improving blood flow to this area and we did this study to see if it would lessen the risk of erectile dysfunction in this population,” he said.

The trial involved 290 men with clinically localized prostate cancer who were treated with external beam radiation therapy with or without permanent
interstitial implantation. The men received either 50 mg of sildenafil or placebo in a 2:1 randomization scheme.

All patients were asked to complete the international index of erectile function (IIEF) and international prostate symptom score (IPSS) questionnaires before radiotherapy and at six, 12, and 24 months afterward.

Men who took sildenafil experienced better total function scores and superior overall satisfaction scores compared to those who took placebo, the researchers found.

The IIEF overall scores were significantly higher in the sildenafil patients at six months (p = 0.006), 12 months (p = 0.02), and 24 months (p = 0.04), Dr. Zelefsky reported.

“Further trials to corroborate these findings as well as to explore the optimal duration for taking such drugs are needed. We hope that this initial study will prompt other centers to study this issue as well as explore other interventions or therapies to achieve what is now called ‘penile rehabilitation’ to lessen the risk of impotence, which is frequently observed after all forms of treatment for prostate cancer,” he said.

By Fran Lowry

MEMANTINE SLOWS COGNITIVE DECLINE FROM WHOLE BRAIN RADIATION

NEW YORK (Reuters Health) - Memantine, a drug used to delay the course of Alzheimer’s disease, also delays cognitive decline in cancer patients receiving whole brain radiation therapy (WBRT), according to a presentation Tuesday at the 54th Annual Meeting of the American Society for Radiation Oncology (ASTRO), held in Boston.

“Whole brain radiotherapy is associated with cognitive impairment documented as early as four months after treatment and seen in as many as 60% of patients,” lead author Dr. Nadia N. Laack from the Mayo Clinic, Rochester, Minnesota, told Reuters Health.

“Memory appears to be preferentially affected,” she said, “and the mechanism of radiation injury appears to be multi-factorial, with similarities to both vascular and neurodegenerative types of dementia.”

In a phase III study, Dr. Laack and her team randomly assigned 508 patients with brain metastases to receive either the N-methyl-D-aspartate receptor antagonist memantine (20 mg) or placebo daily within three days of starting radiotherapy, for 24 weeks.

Cognitive assessments were performed at baseline and at eight, 16, 24, and 52 weeks. Only 32% of patients completed the therapy and assessments, mainly because poor survival and progressive disease led to poor compliance with the treatment protocol, Dr. Laack said.

The primary endpoint was memory decline at 24 weeks on the Hopkins Verbal Learning Test-Revised Delayed Recall (HVLTR-DR), in which subjects are read a list of words and then asked to recall as many as possible 20 minutes later.
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“It has been used for many years and is well-validated and an accurate reflection of memory,” Dr. Laack said.

The median follow-up was 12.4 months. There were no differences in overall survival or progression-free survival between the two study arms.

Patients in the memantine arm had a 17% relative reduced risk of cognitive decline, which was maintained even after memantine was discontinued, Dr. Laack reported.

At 24 weeks, there was a median decline of 0 on the HVLTR-DR with memantine, compared to a median decline of 2 with placebo (p = 0.059).

“This was not statistically significant, because there were just 148 analyzable patients at 24 weeks, which resulted in only 35% statistical power,” Dr. Laack explained.

In addition, fewer patients receiving memantine showed a decline on the Controlled Oral Word Association test at eight weeks (p = 0.008) and at 16 weeks (p = 0.004) compared with those on placebo. Memantine patients also showed less decline in processing speed as per the Trail Making Test Part A at 24 weeks compared with patients receiving placebo (p = 0.014).

Overall, patients treated with memantine retained their cognitive ability about a month longer than patients on placebo, but Dr. Laack said this extra month was valuable.

“These patients, on average, only lived seven months, so preserving function for an extra month we believe is worthwhile. In addition, for the long term survivors with over 12 months of follow-up, cognitive function in those receiving memantine remained stable so their cognitive function was maintained for the duration of the study and likely the remainder of their lives.”

For now, doctors can tell their patients that there is a treatment that can prevent changes in thinking that occur after whole-brain radiation and that should help them maintain a better quality of life after a diagnosis of brain metastases, she said.

“We expect that most patients receiving whole-brain radiotherapy should be offered memantine now, and hope our results will stimulate further study as to the role of this medication in other types of brain radiation and different patient populations, such as patients with primary brain tumors.”

By Fran Lowry

COUNTERPULSATION NO EXTRA HELP IN SUBARACHNOID HEMORRHAGE

NEW YORK (Reuters Health) - In patients with subarachnoid hemorrhage and high risk of vasospasm, intra-aortic balloon counterpulsation (IABC) is no more helpful than conventional hypervolemic therapy (HT), researchers report.

Delayed ischemic neurological deficits due to vasospasm are a major cause of death and disability, as Dr. Diederik Olivier Bulters of University Hospital Southampton, UK and colleagues noted online October 18 in Stroke.
In an earlier pilot study, they found that IABC increased cerebral blood flow and was associated with a reversal of delayed ischemic neurological deficits in patients with subarachnoid hemorrhage without heart failure.

In the Stroke paper, they report on a more recent trial, in which they randomly assigned 71 patients to treatment with IABC or HT.

There were no long-term complications secondary to IABC, but there was no clinical benefit, either.

There were no significant differences in the primary outcome: mean SF-36 score and Glasgow Outcome at six months. Twenty-seven patients in each group had a “good” outcome, that is, a Glasgow Outcome Score of 5 on a scale of 1 to 5.

There was no difference in perfusion indices and cerebral blood flow was not different between groups. There was also no significant difference in delayed ischemic neurological deficits, which developed in 22 IABC patients and 24 HT patients.

The authors aren’t ready to give up, however.

For one thing, they say, the power calculation was based on a 40% poor outcome in the control arm, but the HT arm only had a 20% incidence of poor outcome. “These surprisingly good outcomes mean the study would only be able to detect a very large difference between management regimens,” the authors said.

They also note that the trial was prophylactic and cannot be extrapolated to treatment of symptomatic vasospasm. Thus, they conclude, the approach may “still play a role in patients with concomitant cardiac failure or medically refractory symptoms.”

Dr. Bulters did not respond to requests for comments.

Stroke 2012.

ANTIDEPRESSANT RINSE EASES MOUTH PAIN AFTER RADIATION FOR HEAD AND NECK CANCER

NEW YORK (Reuters Health) - When the tricyclic antidepressant doxepin is dissolved in liquid and used as a mouth rinse, it significantly reduces acute oral mucositis pain in patients with head and neck cancer receiving radiation treatment, researchers say.

They presented the phase III trial data Monday in Boston at the American Society for Radiation Oncology (ASTRO) 54th Annual Meeting.

“Doxepin is an effective way to relieve mouth pain from radiation therapy and it doesn’t have some of the unpleasant side effects of narcotics and other medicines,” lead author Dr. Robert C. Miller from the Mayo Clinic, Rochester, Minnesota, told Reuters Health. “It is an antidepressant but when it is used as a mouth rinse it has a local anesthetic effect.”

Previous, smaller studies have found that doxepin had a pain relief effect when used as a mouth rinse, Dr. Miller noted.

In the current study, which was sponsored by the National Cancer Institute, 140 patients were randomly assigned to receive either doxepin oral rinse (25 mg doxepin in 5 ml water) or placebo. The patients all had head and neck cancer and were receiving radiotherapy at a dose of 50 Gy or greater over more than one-third of the oral cavity.
All patients had oral mucositis pain that was rated at least 4 or greater on a patient-reported numerical analog pain questionnaire (scale, 0 to 10).

The patients received a single blinded dose of doxepin or placebo on day 1. Then they crossed over to the opposite study arm on a subsequent day. They completed pain questionnaires at baseline and at five, 15, 30, 60, 120, and 240 minutes.

After completing the study, patients were given the option of continuing with doxepin.

The results of the study showed that the addition of doxepin significantly decreased pain, which was measured by the area under the curve (AUC) on the pain scale over time.

The pain reduction AUC was -9.1 for doxepin, compared with -4.7 for placebo (p = 0.0003).

Crossover data showed similar results, with a reduction AUC of -7.9 with doxepin and -5.6 with placebo (p = 0.009).

Doxepin was associated with more stinging, burning, and unpleasant taste and caused more drowsiness than placebo. When given the option, 64% of patients elected to continue doxepin (p = 0.002) in the optional continuation phase of the study.

“Doxepin is not going to relieve the pain on its own, but it is a useful addition and hopefully will get people through their treatment better,” Dr. Miller said.

“We tested it specifically in cancer patients receiving radiation therapy but we hope this will have applications in other cases of mouth sores,” he added. “For instance, people who have bone marrow transplants often have horrible symptoms of mouth sores. We also hope it may be useful for things like canker sores and other dental conditions.”

By Fran Lowery

PROCALCITONIN HELPFUL IN WELL-APPEARING YOUNG FEBRILE INFANTS

NEW YORK (Reuters Health) - In well-appearing young infants with fever without a source, procalcitonin (PCT) is a better marker than C-reactive protein for identifying an invasive bacterial infection (IBI) and seems to be the best marker for ruling out IBI, clinicians from Spain have found.

In addition, PCT “remains the most accurate blood test” among infants with normal urine dipstick results and fever of recent onset, Dr. Borja Gomez, from Cruces University Hospital, Barakaldo, Spain and colleagues reported online October 29 in Pediatrics.

The investigators note that several studies have assessed PCT as a marker of serious bacterial infection, but only two have selectively focused on infants younger than three months old and none has specifically considered well-appearing febrile infants. The value of PCT in this patient group “is not clearly defined,” they say.

To investigate, Dr. Gomez and colleagues at seven European pediatric EDs performed a retrospective study of 1,112 infants younger than three months of age with unexplained fever who had PCT measurement and blood culture.
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They report that 289 infants (26%) were diagnosed with a definite serious bacterial infection and 23 with an IBI (2.1%).

In multivariate analysis including clinical and laboratory data, PCT was the only independent risk factor for IBI; the odds ratio was 21.69 for PCT of 0.5 ng/mL or higher.

Positive likelihood ratios for PCT of 2 ng/mL or higher and C-reactive protein (CRP) above 40 mg/L were 11.14 and 3.45, respectively, whereas negative likelihood ratios for PCT less than 0.5 ng/mL and CRP less than 20 mg/L were 0.25 and 0.41, respectively.

The researchers say the best results for PCT were obtained in the subgroup of well-appearing infants with fever of recent onset (i.e., six hours or less before the infant was brought to the hospital) and a negative urine dipstick. In this subgroup, the area under the receiver operator characteristic curve for PCT was 0.819 compared with 0.563 for CRP.

These observations suggest that PCT has “great value” for selectively predicting IBI and is “significantly more useful than CRP, especially for ruling in this type of infection,” the researchers say.

To their knowledge, they add, “this is the first study analyzing the value of PCT in identifying bacterial infections among young febrile infants focused on well-appearing patients with normal urine dipstick and fever of recent onset, the most challenging group in clinical practice. Among this subset of patients, the performance of PCT as a predictor of IBI seems to be even higher.”

The investigators note that properly designed prospective studies are needed to confirm their results.

The study had no external funding and the authors have no conflicts of interest.

Pediatrics 2012.

PELVIC FLOOR MUSCLE TRAINING MAY NOT PREVENT URINARY INCONTINENCE AFTER PREGNANCY

NEW YORK (Reuters Health) - A new study has called into question the efficacy of training the pelvic floor muscles to prevent urinary incontinence after pregnancy.

A randomized trial of 182 women compared formal muscle training sessions to written instructions and found no significant difference in the rate of urinary incontinence between the two. But the results appear to contradict past studies, and secondary analyses are pending.

“Based on our results, we do not recommend systematic or preventive prenatal pelvic floor muscle training,” Dr. Xavier Fritel, an obstetrician and gynecologist at Poitiers University in Paris, France, told Reuters Health by email.

However, Dr. Fritel adds, “In case of urinary incontinence during pregnancy or after childbirth, pelvic floor muscle training is the first line treatment. In asymptomatic women, the benefit is not demonstrated.”

Dr. Fritel presented results from the study at the International Continence Society’s annual conference in Beijing on October 19.
The rate of urinary incontinence, or urinary leakage, among the 182 women who participated in the study was 37% at baseline and increased to 45% in the ninth month of pregnancy.

That falls within the bounds of rates found in other studies. Dr. Fritel and his team cite research reporting incontinence rates of 30% to 50%, and a 2007 paper in Obstetrics and Gynecology reporting a 26% rate before pregnancy that increased to 58% in week 30.

In the new study, at two months postpartum the incontinence rate was 33.7% for the 140 women who underwent formal muscle training and 38.7% in the control group. The difference was not statistically significant. At 12 months postpartum, the rates were 32.2% and 39.4%, again not significant.

In other, similar trials, formal muscle training did have an impact, and this study’s negative result was disappointing, Dr. Fritel said.

“We have to explain why we were unable to reproduce the effect of previous trials,” he said. “Several hypotheses have to be investigated using secondary analysis. First, we have to perform a per-protocol analysis to check if pelvic floor muscle training was effective for some women. We have also to (determine) if there was a heterogeneity between centers or between physiotherapists.”

By Rob Goodier

TIGHT GLYCEMIC CONTROL NO HELP IMMEDIATELY AFTER KIDNEY TRANSPLANT

NEW YORK (Reuters Health) - For diabetic kidney recipients, early intensive glycemic control might reduce delayed graft function (DGF) but with a higher risk of rejection, researchers say.

“Our trial showed that a blood glucose target of less than 180 mg/dL resulted in a lower incidence of kidney rejection than a blood glucose target of 70-110 mg/dL,” Dr. Kathie L. Hermayer told Reuters Health by email. “Due to these results, intensive glycemic control at the time of kidney transplantation is not recommended.”

Dr. Hermayer of the Medical University of South Carolina in Charleston and colleagues randomly assigned 104 patients with diabetes or impaired glucose tolerance to intensive 70-100 mg/dL blood glucose target with IV insulin, or to a control group with a target of 70-180 mg/dL via subcutaneous insulin.

Intention-to-treat analysis in 93 patients showed statistically similar rates of delayed graft function in the intensive therapy and control groups: 18% and 24%, respectively, according to an October 16 online paper in the Journal of Clinical Endocrinology & Metabolism.

Seven of the nine patients with severe hypoglycemia were in the intensive group (p=0.08)

There were 30 episodes of severe hyperglycemia in 17 individuals. Five were members of the intensive therapy group (11%) and 12 were controls (24%); again, the difference was not significant.

More importantly, nine of the 11 rejection episodes were in the intensive therapy group (p=0.013). All were in patients who did not experience a severe hypoglycemic event.
In their paper, the authors wrote, “Managing glucose levels in the renal transplant patient is challenging. Due to immunosuppressive agents and corticosteroid dosing, insulin dosing is a dynamic process.”

Based on their findings, they say they don’t recommend the intensive approach. What they do recommend, concluded Dr. Hermayer, is, “Further study of underlying mechanisms that may explain these findings.”

By David Douglas
J Clin Endocrin Metab 2012.

NEW YORK (Reuters Health) - The incidence of heart failure or cardiomyopathy after adjuvant trastuzumab (Herceptin) therapy for breast cancer is far higher than reported in clinical trials, a new analysis of real-world data finds.

“The risk of heart failure and cardiomyopathy with trastuzumab is “higher than we think and higher than clinical trials indicate and there should be a discussion with patients about the potential benefits and the potential risks,” Dr. Jersey Chen, of the Section of Cardiovascular Medicine, Yale University School of Medicine, New Haven, Connecticut, told Reuters Health.

“The clinical trials that looked at the new agents like trastuzumab really only looked at younger women and these trials also excluded people with cardiac risk factors like hypertension and valve disease and so they kind of underestimate the potential risk of side effects. That’s one advantage of using registry data like we did,” Dr. Chen said.

The investigators used data from Medicare’s Surveillance, Epidemiology and End Results (SEER) program to estimate the risk of heart failure and cardiomyopathy after adjuvant trastuzumab therapy and chemotherapy in 45,537 older women with early-stage breast cancer.

Use of adjuvant trastuzumab increased more than eight-fold in the Medicare population from 2000 to 2007, the authors reported online November 14 in the Journal of the American College of Cardiology.

They say use of trastuzumab was associated with an absolute 14.0% higher adjusted incidence rate for heart failure or cardiomyopathy over three years, compared with no adjuvant chemotherapy or trastuzumab use.

Women who received both trastuzumab and anthracycline had an absolute 23.8% higher rate. Those treated with anthracycline chemotherapy alone had an absolute 2.1% higher rate of heart failure or cardiomyopathy events over three years.

The absolute risk of heart failure or cardiomyopathy associated with trastuzumab in this analysis is substantially higher than those reported from four major randomized clinical trials of trastuzumab, the authors note.

Commenting on the findings for Reuters Health, Dr. Emilio Bria, from Regina Elena National Cancer Institute, Rome, Italy, said “these data should be ana-
lyzed in the context of a very old patient population (median age 76 years), whereas women not receiving anything experience a cumulative heart failure or cardiomyopathy rate of more than 18%.”

Nonetheless, “these results are (of course) of concern in the context of a community-based population of very elderly people,” Dr. Bria said.

Dr. Chen and colleagues say their findings point to a “potentially important role for cardiologists before initiation of cancer therapy to optimize patients who are at high risk for developing heart failure or cardiomyopathy and to detect early signs and symptoms...after treatment.”

Dr. Chen told Reuters Health, “It remains unclear what strategies might help mitigate the risk. There is no clinical trial-proven way to mitigate these risks. There are studies that are investigating the use of certain medications, like beta blockers or angiotensin-converting enzyme inhibitors, prior to initiation of chemotherapy or biologic therapy but it’s all anecdotal. There is no large trial and there should be some emphasis on developing such studies to see whether they actually are beneficial.”

By Megan Brooks
J Am Coll Cardiol 2012.
NEW YORK (Reuters Health) - Selected low-risk patients with pulmonary embolism (PE) may be safely treated as outpatients or with early discharge (within 72 hours), a meta-analysis shows.

Although PE is traditionally treated in the hospital, in recent years several large studies and reviews have suggested that outpatient treatment in selected cases is as safe as standard inpatient care.

For the new meta-analysis, Dr. Wendy Zondag and colleagues from Leiden University Medical Center in The Netherlands pooled data from 15 published studies involving 2,296 low-risk patients.

Different methods were used to define PE patients as low risk - but the researchers say most of the studies used comparable clinical criteria to select patients for outpatient or early discharge treatment.

The pooled risks of recurrent venous thromboembolism (VTE) were comparable at 1.7% for outpatients, 1.1% for early discharge patients, and 1.2% for inpatients, according to a report online October 25 in the European Respiratory Journal.

The pooled risk of major bleeding was 0.97% among outpatients, 0.78% among those discharged early, and 1.0% among inpatients.

The pooled mortality risk was also similar for outpatients (1.9%), those discharged early (2.3%), and inpatients (0.74%), and there were no deaths from PE.

“The strength of this study is that it is the first meta-analysis on outpatient treatment in PE patients with pooled incidences of adverse clinical outcome,” the researchers note. “Although the results presented here indicate that outpatient treatment and early discharge may be as safe as treatment in the hospital, the level of evidence of the included studies remains limited.”

With regard to the heterogeneous criteria used to select patients in the studies they included, the authors add, “it is of utmost importance to define ‘low risk patients’ in a uniform manner in future studies.”

Dr. Zondag did not respond to a request for comments.

Eur Respir J 2012.

NEW YORK (Reuters Health) - Exposure to a rescue course of antenatal corticosteroids may improve neonatal outcomes in twins born before 34 weeks of gestation, a retrospective study suggests.

“As clinicians, instead of focusing all our efforts on treating preterm labor and preventing preterm birth, we may serve our patients better by focusing our efforts on timely administration of antenatal corticosteroids,” Dr. Nathan S. Fox from Mount Sinai School of Medicine, New York told Reuters Health.
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One previous study showed no benefit of routine corticosteroids given every two weeks in the third trimester compared with single-course corticosteroids in twin pregnancies. However, rescue corticosteroid use -- a second course in women who remain at increased risk for preterm birth -- has not been studied in twin pregnancies.

In their practice, Dr. Fox and his colleagues use such a rescue protocol in mothers carrying singletons or twins who have received corticosteroids more than two weeks previously but who in their judgment remain at very high risk for delivery in the next week.

Their new data, reported online November 2nd in BJOG, are from a retrospective study of 130 twins born between 24 and <34 weeks of gestation who were exposed either to single-course (n=88) or rescue-course (n=42) corticosteroid therapy.

Although the two groups had similar rates of respiratory distress syndrome, other adverse respiratory outcomes were significantly less frequent in the rescue group. These outcomes included days on mechanical ventilation for the total group (0.7 vs 5.0; p=0.011); days on mechanical ventilation for neonates who required mechanical ventilation (7.3 vs 33.9; p=0.003); and days requiring a FiO2 above 21% (6.3 vs 33.3; p=0.003).

None of the neonates in the rescue corticosteroids group required mechanical ventilation more than 14 days or died on the ventilator, compared with 11 neonates in the single-course corticosteroids group (p=0.016).

Retinopathy of prematurity occurred not at all in the rescue corticosteroids group but in 12.5% of the single-course group (p=0.016).

There were no differences between the groups in newborn growth parameters.

“Although twin pregnancies have an increased likelihood of preterm birth, and our efforts to prevent preterm birth in twin pregnancies have mostly been ineffective, there are still interventions that have the potential to improve neonatal outcomes,” Dr. Fox concluded. “Antenatal corticosteroids and rescue corticosteroids appear to improve outcomes in the setting of preterm birth.”

“Rescue corticosteroids should be considered in twin pregnancies for the same indications as singleton pregnancies,” Dr. Fox said. “However, since our data is retrospective, it would be premature to recommend them routinely.”

“Ideally, rescue corticosteroids should be studied prospectively,” he added. “However, even a single course of corticosteroids has not been studied prospectively in large number of twin pregnancies.”

By Will Boggs, MD
BJOG 2012.

HEART ATTACKS MORE COMMON AMONG THE UNEMPLOYED

NEW YORK (Reuters Health) - People who have recently lost their jobs are more likely to suffer a heart attack than their employed peers, a new study suggests.
Researchers found each successive job loss was tied to a higher chance of heart problems among more than 13,000 older adults.

Matthew Dupre, the lead researcher on the report from the Duke Clinical Research Institute in Durham, North Carolina, said a combination of stress, worsening lifestyle and poor management of chronic conditions without health insurance may be to blame.

But it's too early to know for sure what's behind the link, he said, which means it's also too early to recommend ways to ward off heart problems among the recently-unemployed.

The new data came from a large U.S. study of 13,451 adults who were interviewed every other year, for an average of 12 years, about their health, lifestyle and life events such as employment and job loss.

Study participants were 55 years old at the onset, on average, and two-thirds of them were overweight or obese. One in seven people was initially unemployed. During the research period, 1,061 participants - almost 8% - had a heart attack.

Dupre's team found the more times people had been fired leading up to the latest survey, the higher their chance of having a heart attack. Unemployment was still linked to a 35% increased risk of heart attack after the researchers accounted for the effects of poverty and education, as well as race, age and other cardiac risk factors.

“We weren't surprised to find the association, but we were surprised to find that the effects were so large, on par with classic risk factors such as hypertension and diabetes,” Dupre said.

“The associations are strong, and they remain despite accounting for a whole host of possible explanations.”

People were especially likely to have a heart attack during their first year of being out of work, the researchers reported Monday in the Archives of Internal Medicine.

Dupre said people who have recently lost their jobs, as well as the doctors who treat them, should be aware of these added heart risks and be extra vigilant about the signs and symptoms of a heart attack.

The author of a commentary published with the study said more research is needed to understand why unemployment may affect health and who is most at risk for such problems.

Studies have shown “a fairly convincing relationship between job loss and adverse health,” according to William Gallo, from the City University of New York.

However, he wrote, “Egregiously absent is research on why and how a socio-economic exposure, such as job loss, influences health.”

*By Genevra Pittman
Arch Intern Med 2012.*
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