1. Breast Cancer Screening for Women at Average Risk 2015

Guideline Update From the American Cancer Society

Kevin C. Oeffinger, et al


Breast cancer is a leading cause of premature mortality among US women. Early detection has been shown to be associated with reduced breast cancer morbidity and mortality.

**New Recommendations** The ACS recommends that women with an average risk of breast cancer should undergo regular screening mammography starting at age 45 years (strong recommendation). Women aged 45 to 54 years should be screened annually (qualified recommendation). Women 55 years and older should transition to biennial screening or have the opportunity to continue screening annually (qualified recommendation). Women should have the opportunity to begin annual screening between the ages of 40 and 44 years (qualified recommendation). Women should continue screening mammography as long as their overall health is good and they have a life expectancy of 10 years or longer (qualified recommendation). The ACS does not recommend clinical breast examination for breast cancer screening among average-risk women at any age (qualified recommendation).

**Conclusions and Relevance:** These updated ACS guidelines provide evidence-based recommendations for breast cancer screening for women at average risk of breast cancer. These recommendations should be considered by physicians and women in discussions about breast cancer screening.

2. Could Working Long Hours Heighten Stroke Risk?

Long working hours and risk of coronary heart disease and stroke: a systematic review and meta-analysis of published and unpublished data for 603 838 individuals

*Mika Kivimäki* et al.
Working 55 or more hours a week is associated with an increased risk for stroke, and the more hours put in at the office or other workplace the greater the increase in risk, a new meta-analysis shows.

Long working hours were also associated with an increased risk for coronary heart disease, but the association was weaker than that for stroke, the results suggest.

The study identified published studies through a systematic review of PubMed and Embase from inception to Aug 20, 2014 and also included unpublished data for 20 cohort studies from the Individual-Participant-Data Meta-analysis in Working Populations (IPD-Work) Consortium and open-access data archives. They used cumulative random-effects meta-analysis to combine effect estimates from published and unpublished data.

In cumulative meta-analysis adjusted for age, sex, and socioeconomic status, compared with standard hours (35–40 h per week), working long hours (≥55 h per week) was associated with an increase in risk of incident coronary heart disease (relative risk [RR] 1·13, 95% CI 1·02–1·26; p=0·02) and incident stroke (1·33, 1·11–1·61; p=0·002). The excess risk of stroke remained unchanged in analyses that addressed reverse causation, multivariable adjustments for other risk factors, and different methods of stroke ascertainment (range of RR estimates 1·30–1·42).

The researchers are not certain what underlying mechanisms are driving the link between working long hours and stroke risk. Sudden death from a stroke is believed to result from a repetitive triggering of the stress response. The authors are examining several potential mediating mechanisms. "At the earlier stages of the disease process, these include stress and sedentary behavior, for example, extended sitting, and, in later stages, established risk factors for stroke, such as cardiac arrhythmias, left ventricular hypertrophy, and the formation of blood clots."

The conclusion is that employees who work long hours have a higher risk of stroke than those working standard hours; the association with coronary heart disease is weaker. These findings suggest that more attention should be paid to the management of vascular risk factors in individuals who work long hours.

### 3. How the Gut Microbiome Affects Outcomes in Cirrhosis: A Review


Pathophysiological effects of dysbiosis are becoming clearer, but knowledge has not yet translated to development of new therapies.

Emerging evidence supports a role for gut microbiota in shaping immune and metabolic functions. In patients with cirrhosis, we know that dysbiosis is associated with adverse effects on metabolism and immunity that can lead to complications such as spontaneous bacterial peritonitis, hepatic
encephalopathy, and variceal hemorrhage.

To assess the current evidence on the effects of dysbiosis on outcomes of cirrhosis, researchers conducted a review of relevant studies published through April 2015. Key findings include:

Alterations found in the composition of enteric flora in patients with cirrhosis include elevated *Enterobacter* and *Enterococcus* and reduced *Bifidobacteria*. In addition, microbial and genetic diversity is lower compared with healthy patients.

The process by which dysbiosis contributes to hepatic encephalopathy is production of ammonia and endotoxin-driven inflammation.

The process by which dysbiosis contributes to spontaneous bacterial peritonitis is bacterial translocation, resulting from bacterial overgrowth, increased intestinal permeability, and integrity of immune surveillance mechanisms.

The success of gut decontamination to treat cirrhosis-related events (e.g., rifaximin use in treating hepatic encephalopathy) highlights the central role of the gut microbiota in their pathogenesis.

The possible role of probiotics in treating complications of cirrhosis such as hepatic encephalopathy is inconclusive due to substantial heterogeneity of clinical trials.

Comment

The authors provide an excellent summary

The role of the gut microbiome – and the cirrhosis. Hopefully, recent advances in culture composition of the gut microbiome will understanding of the pathophysiology of cirrhosis. For now, interventions such as probiotics cirrhosis until we have a better understanding.

4. High serum leptin, insulin levels linked to Barrett’s esophagus risk

AMY KARON

Clin Gastroenterol Hepatol. 2015 [doi: 10.1016/j.cgh.2015.06.041]).

High serum insulin and leptin levels were significantly associated with Barrett’s esophagus, according to authors of a meta-analysis of nine observational studies published in the December issue of Clinical Gastroenterology and Hepatology.

Compared with population controls, patients with Barrett’s esophagus were twice as likely to have high serum leptin levels, and were 1.74 times as likely to have hyperinsulinemia.

Authors reviewed observational studies published through April 2015 that examined relationships between Barrett’s esophagus, adipokines, and insulin. The studies included 10 separate cohorts of 1,432 patients with Barrett’s esophagus and 3,550 controls. Compared with population controls, patients with Barrett’s esophagus were twice as likely to have high serum leptin levels (adjusted
OR, 2.23; 95% confidence interval [CI], 1.31-3.78) and 1.74 times as likely to have elevated serum insulin levels (95% CI, 1.14 to 2.65). Total serum adiponectin was not linked to risk of Barrett’s esophagus, but increased serum levels of high molecular weight (HMW) adiponectin were (aOR, 1.75; 95% CI, 1.16-2.63), and one study reported an inverse correlation between levels of low molecular weight leptin and Barrett’s esophagus risk. Low molecular weight adiponectin has anti-inflammatory effects, while HMW adiponectin is proinflammatory, the researchers noted.

However, their study did not link hyperinsulinemia to Barrett’s esophagus among subjects with GERD, possibly because of confounding or overmatching, they noted. More rigorous studies would be needed to fairly evaluate any relationship between insulin resistance and risk of Barrett’s esophagus, they concluded.

5. Coffee and Mortality: What to believe??

Citation: Ding M, Satija A, Bhupathiraju SN, et al. Association of coffee consumption with total and cause-specific mortality in three large prospective cohorts. [Published online ahead of print November 16, 2015]. Circulation. doi: 10.1161/Circulationaha.115.017341.

Higher consumption of total, caffeinated, and decaffeinated coffee was associated with lower risk of total mortality, and coffee consumption of more than 5 cups/day was not associated with risk of mortality, according to 3 cohorts that included 74,890 women in the Nurses’ Health Study (NHS), 93,054 women in the NHS 2, and 40,557 men. During 4,690,072 person-years follow-up, 19,524 women and 12,432 men died. Researchers also determined:

- Compared to non-drinkers, coffee consumption of 1 to 5 cups/day was associated with lower risk of mortality.
- Significant inverse associations were observed between coffee consumption and deaths due to cardiovascular disease, neurological disease, and suicide.
- No significant association between coffee consumption and total cancer mortality was found.

Comment: This analysis, with over 4 million person-years of observations, adds to existent positive data on coffee consumption. When the analysis looked at the relationship between increased coffee intake and decreased mortality, it was attenuated at high levels of coffee intake for the group as a whole. When the analysis was restricted to non-smokers, there was a linear association between coffee intake and decreased mortality. Other studies have shown coffee consumption to be associated with a decreased risk of type 2 diabetes, Parkinson’s disease, and fatal prostate cancer.


There was no difference in survival between an initial strategy of PCI plus medical therapy and medical therapy alone after extended 15-year follow-up in patients with stable ischemic heart disease, according to extended survival information for 1,211 patients. Median duration of follow-up for all patients was 6.2 years; the median duration of follow-up for patients at the sites that permitted survival tracking was 11.9 years.

Researchers found:
• 561 deaths occurred; 180 during the follow-up period in the original trial and 381 during the extended follow-up period.

• There were 284 deaths (25%) in the PCI group and 277 (24%) in the medical therapy group (aHR, 1.03).

Comment:
The current study follows patients from the original COURAGE cohort for up to 15 years and continues to show no survival advantage in either group. In addition, no high-risk subgroup of patients has been identified that showed a survival benefit from PCI compared with optimal medical therapy alone in the original study or in the extended cohort. This study adds further evidence that PCI can be used for treatment of angina that does not respond to medical treatment but will not offer a survival advantage over optimal medical therapy.

6. Revised Diabetes Recommendations from ADA.

Summary:
The American Diabetes Association has released its Standards of Medical Care in Diabetes—2016 guidelines. Substantive revisions include:

• Classification and diagnosis: Test all adults beginning at age 45 years, regardless of weight.

• Prevention or delay: Use of new technology such as apps and text messaging to affect lifestyle modification is advocated.

• Obesity management: New recommendations about the comprehensive assessment of weight, and treatment of overweight/obesity with behavior modification and pharmacotherapy.

• Cardiovascular disease and risk management: Consider aspirin therapy in women aged ≥50 years. Consider adding ezetimibe to moderate-intensity statin for select individuals.

• Older adults: Includes expanded information on neurocognitive function, hypoglycemia, treatment goals, care in skilled nursing facilities/nursing homes, and end-of-life considerations.

• Management of diabetes in pregnancy: Importance of discussing family planning and effective contraception with women with preexisting diabetes is highlighted. A1C recommendations are changed to a target of 6 to 6.5% (42 to 48 mmol/mol).

Citation: Standards of Medical Care in Diabetes—2016: Summary of Revisions. Diabetes Care. 2015;39(Suppl 1):s4-s5.

7. Antithrombotic therapy for venous thromboembolism.

Summary:
Updated recommendations on 12 topics and 3 new topics are highlighted in this updated guideline for the treatment of patients with venous thromboembolism (VTE). Of the 54 recommendations included in the 30 statements, 20 were strong and none was based on high quality evidence highlighting the need for further research. Among the updated recommendations are:

• For VTE and no cancer, as long-term anticoagulant therapy, dabigatran, rivaroxaban, apixaban, or edoxaban is suggested over VKA therapy, and VKA therapy is suggested over LMWH.

• For DVT, the guidelines suggest not using compression stockings routinely to prevent PTS.

• For subsegmental PE and no proximal DVT, clinical surveillance is suggested over...
anticoagulation with a lower risk of recurrent VTE.

- Thrombolytic therapy for PE with hypotension, and systemic therapy over catheter directed thrombolysis, is suggested.

- Recommendations for who should stop anticoagulation at 3 months or receive extended therapy have not changed.


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The 7th international conference of the Sudanese Society of Anaesthesiologists (SSA) and the 4th conference of the African Society of Regional Anaesthesia (AFSRA) summary, 24th to 27th January 2016

Opening Session. From right to left Prof. Ahmed El Safi, president of SSA, Mr. HasabuAbdelrahman, deputy president of Sudan, Mr. Bahar Idris, fedral minster of health

Introduction:
The 7th international conference of the Sudanese Society of Anaesthesiologists (SSA) was held in conjunction with the 4th conference of the African Society of Regional Anaesthesia (AFSRA) and the European Resuscitation Council (ERC) conference in the period from the 24th to 27th of January 2016.

The conference witnessed the presentation, demonstration and discussion of the most recent advances in the science and technologies of anaesthesia, intensive care and pain management, with the attendance and participation of a considerable number of doctors and experts from many countries and continents. This presented a great opportunity for our anaesthesia specialists and residents to benefit from the vastness of their knowledge and expertise and to form a platform for exchange of opinions and experiences. Regional and international speakers presented original research, cutting edge technologies, hands-on training workshops, and new strategies that addressed various issues in the practice of anaesthesia.

The scientific programme:
The scientific programme of the conference was enriched with valuable presentations from 33 speakers from many countries and continents who shared with us their valuable knowledge and experience in different aspects of anaesthesia intensive care and pain medicine. The programme at glance included comprehensive talks and discussion about different practical issues of anaesthesia, the basic principles of ultrasound, regional anaesthesia, acute and chronic pain management and intensive care medicine. In addition to talks, four comprehensive workshops were conducted to residents and junior anaesthetist, covering...
the basics of ultrasound, pain management interventions, peripheral nerve blocks and ultrasound uses in anaesthesia.

**Guest speakers:**

Sixteen guest speakers from Ireland, South Africa, Germany, Canada, Egypt, Saudi Arabia and United Arab Emirates contributed energetically through their valuable talks and discussion about various issues related to anaesthetic practice, in addition to various workshops delivered to residents.

**Conclusion and recommendations of the conference:**

Our conference is a part of the continuous medical education system which is expected to have a strong impact on the quality of care we provide for our patients in the near future. We believe that the organization of such conferences infuses considerable advanced knowledge and experience into our health sector, and supports the focus on scientific research.

This conference was rich in scientific debates and in-depth discussions which resulted in the formulation of a number of recommendations the implementation of which is expected to enhance the health care system by raising the level of anaesthetic service.
Below are the most important recommendations of the conference:

1. Raising the level of anaesthesia services throughout the country, through a systematic scientific approach, is essential for the re-establishment of the missing trust. The provision of high level surgical services necessitates the provision of quality anaesthesia through increasing the competence of anaesthetist and technicians in an attempt to reduce surgical and anaesthetic hazards and complications. This goal can be achieved via concentrating on quality training on state of the art technologies and techniques, because a competent doctor is the cornerstone in any distinguished health care system. However, the maintenance of these newly acquired skills needs regular application and practice. Unfortunately, this is not going to be possible without the availability of the necessary equipment and supplies that are currently abundant in the exhibitions of medical equipment companies, but lacking in our hospitals.

2. We only demand what is both possible and reasonable when we demand that the anaesthetist should have the say when it comes to devising plans and policies for anaesthesia services, at all levels from the hospital up to the level of the ministry of health, through the available channels. It is not logical that our ambitions in improving anaesthesia and intensive care services should be limited by hospitals administrations through claims of lacking resources and the need for prioritization. The anaesthetist is the one who knows best what should be considered a priority in the provision of anaesthesia and in the care for critically ill patients. In this regard, our society has taken steps in the revision of the Safe Anaesthesia Guide by reviewing the most recent international guidelines and the most recent scientific advances. This guide includes the minimum acceptable anaesthesia setup regarding drugs, equipment, procedures, and the specialized trained cadre. With your support, we hope that the recommendations included in this guide will come to be applied in all our hospitals. The current status of anaesthesia services needs attention from an administration that believes in the importance of continuous development and application of guidelines. This conference comes as a major step in this direction.

3. With accelerated expansion witnessed in the field of anaesthesiology that has resulted in the development of innovative advanced methods for caring for patients under anaesthesia, in the intensive care units and in the emergency rooms, many of the old methods and techniques previously used in anaesthesia were abandoned. In this regard, our society has started revising many of the treatment policies previously applied in our practice. This activity ranges from...
Rewriting the Safe Anaesthesia Guide to the revision of the list of essential drugs for anaesthesia, intensive care and resuscitation, to be in accordance with the most recent advances and guidelines. We hope that our project will be successfully executed with the support of the specialized authorities in creating a partnership between the SSA and the Authority of the Central Medical Supplies Corporation, and the Pharmacy Administration.

4. We totally believe that the well-trained and experienced staff is the spearhead in the development of health services. Accordingly, our society has organized a number of periodical scientific lectures and workshops; and we have opened up communication and cooperation channels with our members inside and outside the country for the purpose of founding a Continuous Anaesthesia Skills Training Centre for our specialists, registrars and technicians, as an essential aid for their training within the official setup. This huge project is beyond the financial abilities of our society which may be limited by the lack of finances but never by the lack of ambition for continuous development. We are not going to stop working hard to achieve these ends but we also need the support of the government by providing us with all the facilitations and finances necessary for the completion of our project.

5. We suffer from a severe shortage in the number of anaesthetists in Sudan. This has had a negative impact on the available anaesthesia cadre, due to an increased workload, and increasing pressures placed on them, which can negatively impact the quality of health care they provide. This situation necessitates the formulation of plans to prevent the continuous drain of anaesthesia personnel through emigration. The sensitive nature of this specialty has caused most doctors to opt to enroll in other specialties for fear of facing stressful situations where patients suffer serious complications or even die under anaesthesia. Therefore we would like that anaesthetists should receive moral and financial incentives that would attract more doctors to this sensitive yet vital specialty.

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