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# ISLAMIC MEDICAL ASSOCIATION OF NORTH AMERICA



## The IMANA PRE-ISNA CME CONFERENCE

August 31 to September 1, 2006  
Hyatt Regency O' Hare  
Rosemont, Illinois

A jointly sponsored CME Conference through  
the Dodge County Medical Society of Wisconsin

### 1 Adrenal Insufficiency in the Emergency Department

*Jawad Arshad, MD, FACEP*

**Objective:** To present the prevalence and importance of recognizing adrenal insufficiency (AI) in the acute phase

**Design:** Literature review of current data to study the prevalence, detection, and treatment of AI in critical care setting.

**Materials and Methods:** A PowerPoint presentation of data from a Medline search of AI and its treatment with outcome data in the critical care setting with a focus on the emergency department.

**Results:** Severe illness and stress activates the hypothalamic-pituitary-adrenal (HPA) axis and stimulates corticotropin releasing factor (CRF) from the hypothalamus, which causes the release of the adrenal corticotropic hormone (ACTH) from the pituitary, which, in turn, causes the release of cortisol from the adrenal cortex. Glucocorticoids regulate gene transcription in every cell of the body. They possess immunosuppressive and anti-inflammatory properties that play a key role in severe illness. The normal cortisol concentration is 15-25 mg/day, which increases to 150-300mg/day during stress. Primary and secondary AI are rare diseases, but acute AI is a common and life-threatening condition in critically ill patients. AI in sepsis treated with steroids has a lower mortality rate (5/23 patients died) compared to nontreated AI patients (5/11), which is statistically significant. Patients with shock from sepsis show a significant decrease in heart rate and norepinephrine requirement when treated with steroids. These patients also show an increase in mean arterial pressure (MAP), systemic vascular resistance (SVR), and cardiac index. AI is thought to play a significant role in adult respiratory distress syndrome (ARDS) as well; surgical as well as nonsurgical patients with ARDS have a better outcome when treated with steroids.

**Conclusions:** AI is prevalent in critically ill patients from sepsis, after surgery, and severe systemic diseases. It is poorly recognized, but it can be treated effectively with a better outcome, improving morbidity and mortality, with vigilant screening of appropriate patients.

### 2 Exubera: The Inhaled Insulin

*Shahid Athar, MD, FACP, FACE  
Department of Medicine and Endocrinology  
St. Vincent Hospital  
Indianapolis and Indiana University School of Medicine*

Even though there is a growing epidemic of diabetes mellitus (DM), nearly 60% of diabetic patients are in poor control as judged by HbA1c greater than 7%. Only 16% of such patients are on insulin, and 12% are on insulin with an oral hypoglycemic agent. Barriers to the use of insulin include the fear of injection, inconvenience of self monitoring and diet adjustment, and the fear of disease progress.

Exubera (Pfizer) was the first inhaled insulin approved by the Food and Drug Administration (FDA) in March 2006 for use in both DM type 1 and type 2. It became available in July 2006. It is human insulin of rDNA origin in powder form, which, when inhaled with the help of an inhalation device, is absorbed through lung surface. Its efficacy and duration of action is like regular insulin, but the onset of action is like Lispro.

In this presentation, the indications, contraindications and safety profile of this new inhaled insulin, Exubera, are discussed.

### 3 Role of Capsule Endoscopy in GI Disease

*Ashraf Sufi, MD  
Senior Gastroenterologist  
Kansas Medical Clinic  
Topeka, Kansas*

Capsule endoscopy is becoming a major part in investigations of gastrointestinal (GI) diseases. Before it was available, many diseases of GI tract were undiagnosed or the diagnosis was assumed on basis of clinical judgment.

On an empty stomach, the patient is called to office, a video capsule is belted around his waist, and he is given a transmitter where all the capsule pictures are captured. After the patient passes the capsule, the transmitter is taken off. With the help of software developed by the Given Company, video pictures are viewed on the video monitor. Step-by-

step pictures of the esophagus, stomach, and small bowel, captured by the capsule are displayed on the monitor and reviewed by the gastroenterologist and his assistant. It takes about 45 minutes to 1 hour to review and interpret the video pictures. A report then is given to the referring physician.

We have been doing capsule endoscopy in the office for last three years and have found it very useful for diagnosing chronic anemia with negative colonoscopy, gastroscopy, small bowel series, and other tests. Most of the time we find multiple arteriovenous malformations (AVMs) as the cause of chronic anemia with positive occult blood in the stools. It has also helped us to find many cases of small bowel polyps, tumors, celiac disease, and Crohn's disease.

At this time we are also using it to screen patients for suspected Barrett's esophagus. My presentation will highlight all the different problems in the small bowel, which we can diagnose and manage with this new tool of investigation.

## 4 Obesity and Heart Disease in Women

*Mariyam Moten, MD FACC  
Riaz Baqir, MD FACC, FACP  
Pennsylvania*

Obesity has reached epidemic proportions. The prevalence of obesity has risen 75% since 1991. Sixty-five percent of adults are overweight or obese. Obesity is defined as high amount of body fat versus lean body mass with a body mass index (BMI) of 30 kg/m<sup>2</sup> or higher. Nationally, the estimated annual cost attributable to obesity-related diseases is about \$100 billion. A primary contributor to obesity is excessive caloric consumption that includes high-fat diets, fast foods, sweets, soda, and snack foods as the common culprits. Between 1963 and 1965 and 1999 and 2000, the prevalence of overweight children ages 6-11 increased from 4.2% to 15.3%, and the prevalence of overweight adolescents ages 12-19 increased from 4.6% to 15.5%. Thus, the increased prevalence of overweight/obesity in children and adolescents portends an even greater increase in adult obesity in the future. Not only is the prevalence of obesity continuing to rise, treatment of obesity-related illnesses is costly and remains an independent risk factor for coronary artery disease (CAD).

Obesity is more prevalent among women. About 65.5 million women in United States are overweight or obese. Obesity is an independent predictor of CAD, particularly in women and in those with abdominal obesity. The waist-hip ratio or waist circumference is more predictive of CAD than BMI alone. Exercise treadmill electrocardiography alone is often difficult for obese patients. Obese patients are, therefore, candidates for pharmacologic stress imaging (e.g., myocardial perfusion imaging). But, obese patients also often have suboptimal perfusion images, especially with Thallium-201, owing to the marked photon attenuation by soft tissue.

If the increasing trend of obesity is not reversed over the next few years, poor diet and physical inactivity will likely overtake tobacco as the leading preventable cause of mortality.

## 5

### The Impact of Sleep Deprivation on Healthcare Professionals

*Sheik N. Hassan, MD, FCCP  
Associate Dean for Academic Affairs and  
Associate Professor of Medicine  
Howard University College of Medicine  
Washington, D.C.*

Recently, the Accreditation Council for Graduate Medical Education mandated restrictions on the number of continuous hours residents can be on duty, the minimum number of hours between tours of duty, the frequency of night calls, and the number of days off averaged over a four-week period. The call for this gained impetus following the death of a young woman, which her family claimed was the result of resident fatigue from long on call hours. Studies indicate:

- Errors and accidents are more likely to occur during the midnight shift
- The average adult needs about 8 hours of sleep each 24 hours
- Sleep deprivation of 2 hours (less than the 8) is equivalent to being legally drunk
- Micronaps are helpful

Healthcare providers are encouraged to plan their time to allow adequate time for sleep and for time with their families.

## 6

## Lessons I Learned after Treating Respiratory Tract Infections for the Past Thirty-Plus Years

*Faroque Ahmad Khan, MD  
Professor of Medicine  
State University of New York at Stony Brook  
Master American College of Physicians*

In this presentation I will present lessons I learned in treating respiratory infections over the past 30-plus years. I will highlight the importance of collaboration with other colleagues when faced with difficult diagnostic problems, the importance of being familiar with the environment one is working in and the role systemic immune deficiencies and structurally damaged lungs play in development of common and uncommon infections. All these topics will be based on actual cases in which I was involved. I will also share the impact of public policy decisions on the evolution of respiratory problems such as multi-drug resistant TB and the evolving bird flu with H1N5 virus. I will conclude with brief comments regarding clinical research and the do's and don't's.

## 7

## Challenging Chest Roentgenograms

*Sheik N. Hassan, MD, FCCP  
Associate Dean for Academic Affairs and  
Associate Professor of Medicine  
Howard University College of Medicine  
Washington, D.C.*

Physicians encounter many interesting and unusual illnesses and unusual manifestations of common diseases. I will present slides showing chest films that are unusual and challenging from patients encountered over the last 30 years. A short history will be presented for each case, and audience participation will be solicited. This will be followed by a short discussion of the film and of the case.

## 8

## An Update on Treatment of Heart Failure

*Mariyam Moten, MD MPH FACC  
Riaz Baqir, MD FACC FACP*

Heart failure (HF) is a condition in which the heart either cannot maintain adequate systemic perfusion, or can do so only at the expense of increased filling pressures. There are about 3.5 million annual hospitalizations for HF. Deaths have increased by 148% in 10 years according to the American Hospital Association's 2002 statistics. HF mortality has surpassed mortality from chronic infection, pneumonia, malnutrition or cancer, thus causing a paradigm shift.

There are no national screening efforts to detect this disease at its early stage as with breast and prostate cancer or even osteoporosis, in spite of the fact that in the United States, the chances of an adult over 40 years of age developing heart failure during their lifetime is 20%. Because HF generally develops slowly, symptoms may not appear until after the condition has progressed over months or years. The heart and circulation adapts to the underlying problem by making adjustments that delay symptoms but do not prevent losses in the pumping capacity. Over time these adaptive mechanisms become maladaptive, and signs of HF appear.

Approximately 5 million Americans are currently living with HF. 550,000 cases are diagnosed each year with an incidence of 1% of the population over the age of 65. It is prevalent in 7% of people between 65-74 years old and in 10% of those older than 75. It is a disease that disables 22% of men and 45% of women after 6 years of diagnosis. The cost for HF care is also on the rise. A total of \$38 billion is spent on HF now, compared with \$25.8 billion in 2001. The cost of care of HF is twice that of all forms of cancers. This is likely to increase further with increased prevalence of coronary artery disease, hypertension, obesity, and diabetes among the aging baby boomers. Treatment objectives of HF include relief of symptoms, prevention of disease progression, hospitalization, and reduction of mortality.

Optimal uses of medical therapy and HF disease management programs by reducing hospitalizations have the potential to reduce HF costs by billions of dollars a year. Therapies that reduce HF hospitalizations, even if they are associated with up-front costs,

will result in substantial reductions in total medical costs. Education and awareness have thus become critical components in reducing HF morbidity and mortality. Prevention of course, remains the best treatment of HF.

9

**Monitoring of Critically Ill Patients—  
What’s Effective and What’s Not  
Case Study: The History and Current Status  
of Swan Ganz Catheter**

*Faroque Ahmad Khan, MD  
Professor of Medicine  
State University of New York at Stony Brook  
Master American College of Physicians*

United States has the highest per capita expense for health care in the world with 14% of GNP spent on health care and an estimated cost per person of more than \$5,000/year. In spite of this exorbitant expense, more than 40 million Americans lack adequate health insurance. One of the major components of rising health costs is the proliferation of expensive diagnostic and treatment modalities. The challenge for health professionals is to use these modern diagnostic and therapeutic tools in a cost-effective manner based on sound scientific investigations and findings.

In this presentation I will use the example of the Swan Ganz Catheter (SGC) to illustrate this point, primarily because of my personal experience with the SGC from the time of its introduction in 1971 to the extensive use in the 1980s and 1990s in critically ill patients and the current very limited use. I will also trace the history of cardiac catheter introduction from the initial “discovery” by a young trainee, Wermer Forsmann, in Germany in 1929, which led to the pioneering work in cardiac catheterization by Cournard and Richard and the award of a Nobel prize to all three in 1956. From the experience gained with more than 30 years of experience with SGC, I will conclude with some “take home” messages.

10

**Endovascular Repair of Aneurysms**

*Husain F. Nagamia, MD FRCS (England)  
Chief Emeritus, Cardiovascular Thoracic Surgery  
Cardiac Institute of Florida  
at Tampa General Hospital  
Clinical Asstistant Professor of Surgery  
University of South Florida Medical School  
Tampa, Florida*

Endovascular treatment of an abdominal aortic aneurysm (AAA) is a relatively new technique of repairing AAAs with an endovascular-covered stent graft. This presentation will examine the indications, contraindications, and the technique used to deploy these endografts. I will also discuss the results obtained with this technique and compare and contrast it with conventional open repair. I will examine the advantages and the limitations that this technique has when compared with conventional open repair. A brief review of literature will be given.

11

**Preferences of Detroit Arab Muslims  
During Critical and Severe Chronic Illness**

*Hasan Shanawani, MD, MPH  
Division of Pulmonary and Critical Care Medicine  
Henry Ford Health System  
Detroit, Michigan*

Increasing attention in the medical literature has focused on the quality of end-of-life care (EOLC). Multiple studies report the dissatisfaction expressed by families, and often the patients themselves, with the quality of care received by dying patients in the intensive care unit. While most clinicians and education leaders do not believe in the need for formal education in EOLC, a growing body of literature and experts support formal approaches, education, and research in EOLC.

In this presentation, the author intends to build a framework and research agenda to study the needs of Arab Muslims in Detroit admitted to ICUs in area hospitals.

At the end of this presentation the attendant should be able to:

- Cite available literature on quality delivery of

- EOLC,
- Discuss questions regarding research in the delivery of EOLC, and
- Evaluate the importance of the study of specific communities to building our understanding of the delivery of EOLC.

## 12

### The Perceived Role of Islam in Muslim Medical Practice within the United States

AI Padela\*, N Chin\*, J Greenlaw\*, H Shanawani\*\*,  
M Aktas\*, and H Hamid\*\*\*

Departments of Emergency Medicine (AIP), Community and Preventive Medicine (NC), Cardiology (MA), and Center for Palliative Care and Clinical Ethics (JG)

University of Rochester Medical Center

\*\*Department of Critical Care and Pulmonary Medicine  
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\*\*\*Department of Psychiatry  
New York University

#### Objectives:

1. To explore the influence of Islam upon practice patterns of immigrant Muslim physicians in the United States in order to generate hypotheses for further testing.
2. To characterize areas of potential ethical challenges and value conflicts as perceived by Muslim practitioners in the United States.

#### Design/Methods:

Qualitative semistructured indepth physician interviews. Study recruitment was through a convenient sample of local Muslim physicians known to the investigative team, and through fliers at local Islamic centers. Interviews were transcribed verbatim and underwent independent and then consensus review for recurring themes and domains by the multidisciplinary investigative team.

#### Results:

##### *Characteristics of Study Participants*

A total of 10 physicians were interviewed, seven male and three female, from a variety of ethnic backgrounds. The physicians selfreported religious training comprising Qur'anic studies (50%) and elementary and secondary Islamic studies (50%), none had religious degrees or formal training. Most of the physicians reported no biomedical ethics training

(50%), while a few did report didactics within medical school or residency training (30%) and a couple were members of the hospital ethics committee (20%).

##### *Perception of how Islam Affects Medical Practice*

Several physicians noted that Islam enhanced their professional ethics in terms of honesty and integrity and treating patients equally. A couple felt that Islam only affected their personal life and interpersonal behavior but did not affect clinical practice. Many physicians noted that Islam influenced their practice of medicine in more tangible ways, e.g. specialty-choices, personal and professional conduct, the type of patients they feel more comfortable managing, and the types of procedures they perform.

##### *Cultural Expectations*

A number of concerns centered around the culture of medical practice and social interactions among peers.

##### *Sources of Support*

There was no well-developed support structure to refer to when facing ethical challenges. Some found support from their Muslim medical peers, and one found support from a national Islamic medical organization. Most physicians delineated a large role for religious experts within ethical decisionmaking, from identifying areas where Islamic law conflicted with modern medicine to developing Islamic guidelines regarding these challenges (abortion, organ transplantation, surrogate motherhood, end-of-life care).

#### Conclusions:

Several different areas of potential ethical conflict between Islam and modern medical practice were identified, and most participants did not find a well-developed support structure to turn to when facing these dilemmas, although they noted a role for Islamic scholars within ethical decisionmaking. Further study into the interplay between Islam and Muslim medical practice and the manner and degree to which Islamic values and law influence ethical decisionmaking is needed.

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**13****Enhancement Technology and the Person, an Islamic Perspective**

*Shahid Athar, MD  
Former Chair, Medical Ethics, IMANA*

Physically and intellectually man is not the same as he was a million years ago. These “improvements” in the human person have come from within over a period of time and not as a result of any outside biotechnical intervention. So the question is what is the need now? The fine line between what can be done technically and what should be done morally is the reason for biomedical ethics. What is the nature of man and what is his relationship with his Creator and his environment? Whose interest (man, God, and environment) are we scientists and physicians to guard and advance? What is the right of the unborn, and who protects these rights? While seeking medical treatment for infertility and reconstructive surgery for a malformation or genetic manipulation for a genetic disease may be appropriate and recommended, is it appropriate to create a super healthy, super human with genetic manipulation? If so, are we embarking on a path of ethnic cleansing against humans of lesser ability, and is it appropriate to discriminate them? In this presentation, such concerns and questions are discussed from an Islamic perspective.

**14****Contribution that Ibn Abi Usaibi'ah, 'The Physician Historian,' Made to the History of Islamic Medicine**

*Husain F. Nagamia, MD, FRCS  
Chairman, International Institute of Islamic Medicine  
Past President of IMANA*

Most Muslim physicians have heard (or should have heard) about famous Muslim physicians such as Al Razi, al Majusi, al Tabbari, Ibn al-Nafis, and Ibn Sina, but very few physicians have heard about Ibn Abi Usabi'ah. So then why am I presenting a paper about this not-so-famous physician? This is because although Ibn Abi Usabi'ah is not as famous as some of his contemporaries he is no less important than any of these, when considering the contribution that he made to the history of Islamic Medicine. In this

presentation I will examine who he was, what contributions he made and why were they so important. He rightfully deserves a very high place in the history of Islamic Medicine.

**15****Perspectives of a Muslim Physician Scientist: Medical Research, Ethics and Professionalism**

*Jalees Rehman, MD  
Indiana University, School of Medicine  
Indianapolis, Indiana*

Medical research is confronted with an increasing number of ethical issues. Novel technologies have focused on the question of what we can accomplish, while ethical questions focus on what we should accomplish. Little is known about the Muslim perspective on such ethical issues relating to research; however, it is imperative that Muslim researchers, ethicists, and physicians help develop such a Muslim perspective. Two representative ethical issues in medical research will be discussed: The use of human embryonic stem cells as well as the issue of informed consent in research trials. Neither of these issues can be answered easily. The necessity for experts in the areas of ethics, medicine, and research to address such issues in a professional manner will be highlighted. Finally, the broader relationship between Islam and medical science will also be discussed.

*Editor's note: Abstracts presented at the conference but not received before the JIMA publication deadline are not included in the preceding listing.*