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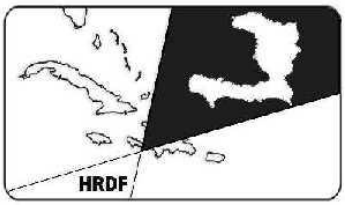

The Haitian Resource Development Foundation (HRDF), a 501 (c) 3 non-profit organization, with United States Federal Tax I.D. No. 72-1074482, was established in 1987 in the State of Louisiana. This Foundation is also recognized by the government of Haiti as a Non-Governmental Organization (N.G.O.) under the RE: No. MPCEFP/1993/94/17 and registered in the archives of Le Ministère de la Planification et la Coopération Externe under the number B-0167. HRDF's mission is to initiate or support projects whose goals are to develop Haiti's resources and focuses its effort on outcome-based programs in the fields of health care, education, scientific research, arts and culture and economy.

Medical Conference Report
"Acute Medical Care, with a Critical Review of the Literature
Camp-Perrin, Haiti, July 4th and 5th of 2012

Instructors:
Jocelyne David, M.D., F.A.C.P., Chief Hospitalist, Miami Florida Veterans Administration Health Care System, and Affiliated Assistant Professor, University of Miami School of Medicine, HRDF medical coordinator
May Gouin, M.D., Board-Certified in Family Practice, Bay Pines Florida Veterans Administration Healthcare System.

Assistants:
Maxime Thuriere and Richard Dumoulin - Florida University students

This conference was conducted as a combined effort of the International Medical Corps [IMC] (an NGO), Haitian Resource Development Foundation [HRDF] (an NGO), the Ministère de la Santé Publique et de la Population [MSPP], the Association of Haitian Physicians Abroad [AMHE] (an NGO) and MEDTRONIC [a medical equipment and technology corporation].

HRDF/AMHE has vowed to narrow the knowledge gap between Haitian physicians and others in the modern world on the subject of evidence-based medicine and health care delivery, this being defined as delivering the best care possible at the right time with the evidence proven on research care .

Health care should be: safe, efficient, patient centered, timely and equitable. As part of this effort, HRDF recently began offering a short-course on emergency and hospital medical care. The curriculum, based on case studies, covers the acute medical care setting (emergency, surgery, post-operative, etc.) and includes a critical review of current medical literature.

Two Haitian-Americans women physicians, Dr. Jocelyne David and Dr. May Gouin, and two Haitian-American students from Florida University, Maxime Thuriere and Richard Dumoulin taught the course

to eleven Haitian physicians and five nurses from across Haiti's Southern department. The subjects included heart failure, pre-operative evaluation, sepsis, pulmonary embolisms, overview of evidence-based medicine and emergency care in the medical clinic.

HEART FAILURE

Heart failure in Haiti is known and common. The American nongovernmental organization Sante Coeur Haiti <http://www.santecoeur.org/index.php?page=About> for example, believes there can be as many as 1,600,000 women in Haiti sick with heart failure – "their pump just doesn't pump enough" – that is almost one of every four women. For another example, the noted Albert Schweitzer Hospital that serves a population of more than a quarter-million in north-central Haiti reported a high incidence of peripartum cardiomyopathy over seven recent years. Relating to almost eight thousand live births annually, the hospital saw one case per four hundred live births, compared with one per three thousand to four thousand in the United States. There were four deaths (14% of 29 patients with follow-up), and seven complications (pulmonary embolism (1), hemiplegia (1), subsequent deterioration of heart function (5). Further, the prognosis for subsequent pregnancy was 4 of 5 cases (80%) of recurrent congestive heart failure <http://www.ncbi.nlm.nih.gov/pubmed/12015528>

To begin the session, the instructors administered a pre-test to determine participants' prior knowledge on recognizing and treating heart failure. Then they presented the "Final Recommendations of the American College of Cardiology and American Heart Association" from 2009 that updates the "Guidelines for the Diagnosis and Management of Heart Failure in Adults" from 2005. These guidelines address early prevention, risk factors modification (diet and exercise), timely diagnosis, and evidence-based treatment.

Standard prescription treatment with Beta Blockers, ace-I (angiotensin converting enzyme inhibitor), AA (aldosterone antagonist) , ARB (angiotensin II receptor blocker), and Statin – all generally available in Haiti - were reviewed, as well as other highly-specialized treatments that are not available or readily accessible in Haiti such as cardiac resynchronization therapy [CRT], implantable cardioverter defibrillator [AICD] and cardiac transplant. Finally palliative care for end-stage [terminal] patients was discussed.

PRE-OPERATIVE EVALUATION AND POST-OPERATIVE CARE

Surgeons in much of the modern world know the lifesaving benefits of thorough pre-operative evaluation and post-operative care. Accordingly, space, staff, equipment and supplies are provided for in hospitals, clinics and private practice. While this is not yet prevalent in Haiti, things are improving, especially since the earthquake and cholera have given ample opportunity to see the improved results that good preparation and post-operative follow-up make in the well-being of patients.

For this session, the instructors delineated the components of pre-operative operation and post-operative care. They emphasized ways to improve efficiency in determining and ranking health risks based on clinical grounds such as medical histories, physical examinations and use of laboratory data. The instructors stressed the "Revised Cardiac Index of the Lee Criteria," and encouraged participants to review and adopt the AHA/ACC "Guidelines on Cardiac Pre-operative Evaluations." <http://circ.ahajournals.org/content/vol116/issue17/#ACC_AHA_GUIDELINE>

Strategies of risk reduction were presented, as well as measures for venous thromboembolism [VTE] prophylaxis, cardiac, pulmonary, hepatic, alcoholism and other issues. Dr. David also explained the important role of "hospitalists" (internists working exclusively in the acute care setting) in peri-operative care in the United States.

SEPSIS

The prevalence of sepsis and/or meningitis in newborns in Haiti has been documented, for example, <http://www.ncbi.nlm.nih.gov/pubmed/14984170> with note of risk from HIV-infected mothers, e.g. http://journals.lww.com/jaids/Fulltext/2006/11010/Contribution_of_Bacterial_Sepsis_to_Morbidity_in.8.aspx. Numerous earthquake victims also suffered sepsis and gangrene, some of these infections necessitating amputations.

Despite the fact that sepsis frequent occurs in developing countries, guidelines for its management have been lacking, especially in a country like Haiti. Because of this, the instructors introduced and reviewed the guidelines of the "Surviving Sepsis Campaign." <survivingsepsis.org>. They gave emphasis to the first stage of the Campaign - diagnosis and treatment – that requires a set of clinical actions during the first six hours. This has led to an improvement of survival rates in developed countries and is now being adopted in other countries such as the Democratic Republic of Congo, Thailand and Brazil.

Establishing the Campaign, however, can be costly and require some cultural changes. However, some of the basic lifesaving steps can be taken even in developing countries, e.g. administration of intravenous fluids to maintain blood pressure, and timely treatment with antibiotics while awaiting laboratory results.

PULMONARY EMBOLISM (PE)

This subject was specifically requested by the audience because Haiti's president recently suffered pulmonary embolism during recovery from shoulder surgery. The instructors explained the purpose and value of "pre-test probability" in the diagnosing of pulmonary embolisms and deep vein thrombosis [DVT]. The Wells Criteria is another tool; it is clinically proven and can be applied where hospitals and clinics have few resources on hand. Patients with low pre-test probability and negative Wells Criteria can forgo further testing. If the opposite, they can be treated for PE and DVT. Patients with intermediate scores be tested further with, for example, Doppler of the lower extremities, pulmonary CT angiography, or nuclear lung scanning. Unfortunately, the last two are not yet available in Haiti.

Finally, pharmacological treatment of pulmonary embolisms (unfractionated heparin, low molecular weight heparins, factor Xa inhibitors, and vitamin K antagonist /Coumadin) was assessed as well as the duration of treatment, contra-indications, and non-pharmacological treatment, such as with placement of IVC filter. The indications for hypercoagulable workup were also reviewed.

EVIDENCE BASED MEDICINE (EBM) OR MÉDECINE FONDÉE SUR LES FAITS (MFF)

For the first time in the Haiti's South, physicians and nurses received a brief overview of the field of "Evidence-Based Medicine," including a critical review of medical literature to help improve their access to and understanding of the method. For an exercise, elements of EBM, from a course at Duke University Medical School, see <http://www.hsl.unc.edu/services/tutorials/ebm/> were used to discuss and analyze an article from the New England Journal of Medicine. The anatomical definition of a medical question was reviewed based on the PICO formula and a medical literature search. Participants were also quickly briefed on different methodologies used in medical research such as randomized control trials, meta-analyses, and case & cohort studies.

The level of recommendations available in the medical guidelines (a,b, and c & I,II, and III) was also discussed. Links to online access was also provided, may online journals can be accessed for free just with the help of internet (e-medicine, Pubmed or Medline :http://www.ncbi.nlm.gov, the Cochrane library :http://www.thecochranelibrary.com/view/0/index.ht, The American college of physician: ACP Journal Club: http://www.acpjc.org.
Finally, Dr. David stressed the fact that everyone can contribute to the medical research world by reviewing, reporting and monitoring their own medical practices.

EMERGENCY CARE IN THE OFFICE SETTING

This session was presented by Dr. May Gouin. The first subject of care was fever. Dr. Gouin covered the definition of fever as well as the causes, symptoms, and methods of diagnosis. She also covered the subjects of chest pain and abdominal pain.

FOREIGN STUDIES

Two undergraduate students, Maxim Thuriere and Richard Dumoulin, both studying medical related fields, spoke about medical and nursing education in the United States. Their main objective was to make sure the audience understood the process of going to medical school or nursing school as an international student and the process of practicing medicine in the United States. The audience seemed very interested in learning what steps needed to be done before being able to practice medicine in the United States, such as passing the United States Medical Licensing Examination [USMLE] and needing to be fluent and literate in English.

CONCLUSION

When first arriving at Camp-Perrin, we had doubts as to whether our information and insights would be of any interest or even of any help to the participants. As it happened, the participants always seemed very engaged in the topics at hand. At times disagreement would erupt in the audience and the physicians would give reasons as to why their arguments were sound, based what we had presented. This was reassuring to us, knowing that they were able to grasp the information we had presented. At the end of the sessions, we gave a post-test, mainly to see if the participants had understood the material given to them and if they could apply them to specific cases. The results were all well above the 70% mark.

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