Flawless Operative Cardiovascular Unified Systems  
**FOCUS**  
Update and What Next?

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- FOCUS/ JHU have collected human error/patient safety data from the initial sites via our collaborative arrangement. Dr Pronovost will update the membership regarding a “first pass” look at that data. On going data analysis, review, publication and feedback in to the process is now and will a moving target. Remember the entire plan regarding FOCUS was that this effort will be scientifically and data driven. **So we are just now beginning to have a small glimpse into the first piece of real data.**

- FOCUS has contacted the leadership of: STS, AMSECT, AATS, and AORN. STS and AATS have already had input and some steering committee representation. The future will see a closer working relationship as all of the societies are approached and their support (financial as well as membership/input) is solicited such that FOCUS becomes a true cardiovascular showcase. Direct face to face meetings have and will take place between the FOCUS steering committee and the boards or key members of each of these professional organizations. **Your help may be needed if you have key contacts.**

- Multiple solicitations for SCA membership in FOCUS committee activities have been sought. These committees will do the real work of FOCUS. They include: Data, Publications, Public Relations, Speakers Bureau, Funding/Grants and Site Selection. The site selection committee did its original task of finding the first 5 sites for study. But, clearly more sites will be studied and some 46 sites wished to be included in the original examination. The steering committee hopes to have someone from all the 46 originally interested sites working within FOCUS on one or more committees. The description of the committees and their work is on the SCA Foundation web site. **Please volunteer and get involved!**

- A summit meeting is being planned for late summer or fall. This summit will have representation from FOCUS leadership but also have invited guests from the above named cardiovascular stakeholder societies, other key cardiovascular societies around the world that have expressed interest, industry and government agencies. The agenda for this summit will be to further increase FOCUS relations/relationships, and to explore grants, funding and cooperative collaborative relationships with the societies. **All interested SCA members with unique relationships and contacts should be advised to speak with either the FOCUS Steering Committee leadership and or volunteer for one of the committees.**

- The next steps: data gathering, analysis, etc will be driven by data as co-analyzed by FOCUS/JHU. This may well include any/all of the following: more sites visited to gather a larger and more robust database, development of the first self-study instrument, early recommendations/interventions, and study of these early interventions for efficacy. The road through each of these branching paths has implications and costs in terms of future
data gathering and scientific validity of the findings. Of course, each also has monetary costs for which FOCUS must seek partners, grants and growth. At the writing of this summary: February 2009, without data analysis yet, it is impossible to say which road appears to be the most likely.

➢ The ultimate goal for FOCUS is to change the climate in which we work. That change should/will be like the airline industry in that human error management and therefore patient safety will become of paramount importance. This did not happen overnight in the airline industry and it will take years for FOCUS to change how we do business. It will be data driven. At times it will appear slow and methodical, but in the end it will be driven by grass roots desire of our SCA membership to see that layers and layers of human factors engineering are built into how we do our jobs such that human error becomes ever more unlikely.

➢ Below is a public relations statement put out by FOCUS and JHU. It tells the story of what we are working towards. Please take the time to contact John Melleky, Executive Director SCA Foundation or members of the Steering Committee to contribute (time, money, support, ideas, help, and volunteerism).

SOCIETY OF CARDIOVASCULAR ANESTHESIOLOGISTS FOUNDATION AND DR. PETER PRONOVOST TO COLLABORATE

FOCUS INITIATIVE TO REDUCE HUMAN ERROR; INITIAL SITES CHOSEN

January 30, 2009 - Richmond, Virginia – The Society of Cardiovascular Anesthesiologists Foundation and Peter Pronovost, M.D., Medical Director of the Center for Innovation in Quality Patient Care at the Johns Hopkins School of Medicine have entered into a collaborative endeavor to reduce human error in the setting of cardiovascular anesthesia and surgery. The FOCUS project (Flawless Operative Cardiovascular Unified Systems), a multi-year, multi-center initiative, will examine the physical and cultural environment of the cardiac surgery operating rooms, and will seek to define processes by which the cardiovascular operative teams can reduce the impact of human error. The research will be based on the cockpit (or crew) resource management (CRM) model, implemented worldwide by the commercial aviation industry. The CRM model is based on the concepts that “although individuals may make mistakes, it is possible for teams to be flawless” (John Nance), and embraces a culture in which everyone involved in servicing, preparing, or flying an aircraft is granted responsibility for that aircraft’s safety. Checklists, guidelines and standardization are tools used to ensure flawless team operation. Although every individual involved in cardiovascular operative patient care is dedicated to patient safety, the processes and communication patterns that exist frequently are inadequate to achieve the goal of absolute patient safety.

Why this initiative? In 2000, the Institute of Medicine report To Err is Human: Building a Safer Health System estimated that 48,000-98,000 lives are lost every year in United Sates hospitals due to human error, and that number is almost certainly an underestimation of the extent of the problem. In aviation terms that would mean the crash of a
fully loaded Boeing 747 every other day for one year. The cascade of events that result in loss of a patient’s life are typically rooted in human error, and prior efforts to reducing human error have often focused on disciplinary action and/or even the shunning/dismissal of a highly trained physician or medical personnel. An elimination of the offending human does not reduce the risk of future human error by itself unless the physician has somehow been otherwise truly incompetent. Prevention of future human error cascades requires understanding the human factors that led to the human error and requires efforts to learn about the systems that allowed failure to occur.

*What is involved?* The first step in the FOCUS initiative will be in-depth observation of the physical, emotional and cultural environment in the cardiovascular operating rooms. Using a set of highly refined metric instruments, the research team led by Dr. Pronovost will gather data from which a set of checklists, guidelines, or interventions will be developed. These interventions will then be tested in a series of beta sites, refined as needed, and then introduced to the national community of cardiovascular operative personnel.

This initiative follows numerous others within the greater anesthesia community which have led to this specialty being recognized as being one of the safest in medicine. Five sites have been chosen for this initial series of observations with support from the following teams:

- **St. John’s Mercy, St. Louis, MO**
  - Anesthesiologist: Christopher Young, M.D.
  - Surgeon: Edward B. Savage, M.D.

- **New York University, New York, NY**
  - Anesthesiologist: Marc Kanchuger, M.D.
  - Surgeon: Aubrey C. Galloway, M.D.

- **Medical University of South Carolina, Charleston, SC**
  - Anesthesiologist: Jake Abernathy, M.D.
  - Surgeon: Fred A. Crawford, Jr., M.D.

- **Baystate Medical Center, Springfield, MA**
  - Anesthesiologist: Gary Kanter, M.D.
  - Surgeon: John A. Rosou, M.D.

- **Lehigh Valley Hospital, Allentown, PA**
  - Anesthesiologist: Nanette Schwann, M.D.
  - Surgeon: Gary Szydlowski, M.D.

Dr. Pronovost and his team’s proposal were selected by the FOCUS Steering Committee from a Request for Proposals sent to 60 institutions. Dr. Pronovost’s special interest is applying research methods that improve quality of health care and safety, especially in
critical care settings such as ICUs and operating rooms. His expertise in this area has gained international attention, and Dr. Pronovost was awarded a MacArthur Genius Grant in 2008. On a national level, Dr. Pronovost is leading an effort to develop the idealized ICU design with the Institute for Healthcare Improvement and developing standards for ICU quality measures with the VHA. Dr. Pronovost is currently working with the Michigan Hospital Association to improve intensive care unit care throughout the state. He is an active member of the National Coalition on Health Care and the medical advisor for the Leapfrog Group for patient safety.

The SCA Foundation, founded in October of 2007, is the philanthropic arm of the Society of Cardiovascular Anesthesiologists. The Foundation promotes and supports excellence in the care of patients undergoing cardiothoracic and vascular procedures through education and research.

The Society of Cardiovascular Anesthesiologists is an international organization of over 7,000 cardiac, thoracic, and vascular anesthesiologists that promotes excellence in clinical care, education, and research. Formed in 1977 to promote the specialty of cardiovascular anesthesia, it has grown rapidly with the growth of cardiac, vascular and thoracic surgery. Over the past 30 years, the SCA has led the way in the training and certification of intra-operative echocardiographers, development of credentials for cardiovascular anesthesiology training (fellowship), and has collaborated with the wider medical community in setting guidelines for patient care.

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