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EDITORIAL

Globalization and Maxillofacial Surgery: A Strategy for the Future

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The world is globalizing and this trend poses challenges and opportunities for our specialty. As a result of globalization, diseases, patients, providers, trainees, and research are all moving across borders. The current problem is that there is only limited accreditation of healthcare facilities, and no standardized accreditation of medical and dental schools, graduate medical education, clinical research facilities, assessment of clinicians, or licensing of providers. Therefore, there are wide variations in healthcare quality, safety, education, training, and competency among healthcare providers. It is therefore critical that our specialty take a leadership role in limiting these variations and assuring professional competency and high quality clinical care.

Having now completed over 40 years in the specialty, I'd like to take a "Monday morning" perspective and tell you, what has contributed to the unprecedented growth of the specialty of oral and maxillofacial surgery (OMS) and where do we go from here. My perspective is based on 30 years as an educator, clinician, administrator, and very active participant in professionally related committees and societies, and for the past 12 years serving on an international healthcare accreditation commission, and international healthcare improvement organization. Based on my experience, observations, and international experience I'll conclude by providing you with a suggested roadmap forward as we move into the 21st century.

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It is said that nature abhors a vacuum and I believe that also applies to healthcare. OMS evolved because of a need for specially trained surgeons to provide care in the mouth and maxillofacial region. When you look at the development of OMS in regions and countries as disparate as China, Siberia, India, and Brazil, the story of the development of the specialty is nearly identical.

This generally began as a need for surgeons to perform dentoalveolar surgery, manage pathology, and as a result of wars, a demand for surgeons to treat traumatic injuries of the jaws. Over time this has evolved naturally to include all maxillofacial injuries, orthognathic and craniofacial surgery, clefts, implant surgery, reconstructive surgery, etc. And more recently, we're seeing our specialty becoming actively involved in the management of oral and head and neck cancer. How did this happen? What has been critical to the development of the specialty and its current broad scope?

Probably the most critical factor was the development, in a number of countries, of training guideline documents which standardized the education and training of oral and maxillofacial surgeons. Prior to 1959 in the United States, there were well over 150 "training programs"—nobody knows the exact number—which were little more than apprenticeships. If you were to see one of these training programs, you merely saw one program. There was no standardization concerning the components of training, the scope of surgery or even the length of training. Unfortunately, many "program directors" used trainees as cheap labor in their personal practices with little thought to formal education and training. Then in 1959 a formal training standards document was adopted by the American association and we were on our way as a recognized specialty. To complement the training standards, an oversight process was then established whereby surgical peers would visit the

training programs on a regular 5 year basis to confirm that the training standards were being followed. Weak programs closed and strong ones prospered. Once the specialty in the U.S. had a baseline standards document, it was able to begin an orderly and progressive expansion of the education, training and scope of surgery being performed in training programs. Today, the OMS is truly the surgical specialist of the oral and maxillofacial region. Okay, our training programs are guided by training standards and an accreditation process but how do we assess the products of these programs and assure competence? Hence the board or college certification process.

Board certification is a process which has had an important role in other medical and surgical specialties for many years and was a natural for OMS as the specialty pursued formal recognition and credibility as providers of surgical care. This process not only assessed the quality of the candidate but also played an important role in channeling education and training. This is an ethical responsibility that all examining boards must deal with; however, it is a powerful tool for directing the scope of education and training. When a line of questioning on a topic is first introduced at a board examination, the candidates generally don't perform well. Amazingly, however, over the next several years the candidates markedly improve their knowledge and competency in those exam areas. Once the word gets back to the training programs, the curriculum begins to incorporate these new areas and competency and scope begin to change.

The board examination process to date has primarily assessed cognitive rather than surgical skills. This, I believe, is about to change. With technological advances and the use of simulation I believe the examinations of the future will test not only cognitive but also technical skills which will close the loop on OMS education, training and outcome assessment.

This specialty must standardize it's education and training, program accreditation processes and outcome assessment through standardized exit examinations. The National Board of Medical Examiners (NBME) in the U.S. has developed assessment tools for medical students globally and for physicians that are moving from country to country. The Accreditation Council for Graduate Medical Education (ACGME) has developed an accreditation process for residencies and fellowships and plans to pilot this process in Singapore. OMS must think globally about training, program accreditation, and outcome assessment of our young surgeons.

OMS also has a role to play in the improvement of healthcare quality and patient safety in the broadest sense. It's important that members of our specialty be seen as healthcare leaders and advocates for patient quality and safety by participating in local hospital efforts and national quality oversight processes such as accreditation.

Hospitals in the United States have had quality oversight through accreditation since 1917. Importantly, however, was the establishment of an international accrediting arm—Joint Commission International—in 1999 which now has accredited hospitals in Europe, Middle East and North Africa, South America, China, and of course, India. This has not only helped international hospitals to begin standardizing their structures and processes, it has also raised the importance of quality oversight in countries where there had been none previously. It is important for members of our specialty to become active proponen for quality and safety in their own hospitals and in national programs such as NABH in India.

One of the concerns with hospital accreditation in the past has been that the evidence was "soft" that the process was actually effective in improving safety and healthcare quality. Those involved in accreditation have always believed in it's value; however, there is now a growing body of hard evidence that accreditation is an effective healthcare improvement tool. The following are two such examples.

In 1995, The Joint Commission had received zero reports of wrong site, wrong patient surgery. However, reports began to appear in the press that this indeed was a problem, so The Joint Commission developed a policy that encouraged reporting of adverse events, including wrong patient, wrong site, wrong procedure events and the flood gates opened. In 2009, 149 of these cases were reported. Understanding the frequency of these events and their common causes led to the development of the "Universal Protocol" and surgical safety checklist. Their use is now mandated by most accreditors. But, have they improved safety?

Haynes and colleagues [1] reported on use of the surgical checklist in the *New England Journal of Medicine*. Between October 2007 and September 2008, in eight hospitals in eight cities around the world, the authors prospectively collected data on clinical processes and outcomes from 3,733 consecutively enrolled patients 16 years of age or older who were undergoing surgery. They subsequently collected data on 3,955 consecutively enrolled patients after the introduction of the Surgical Safety Checklist. The primary end point was the rate of complications, including death, during hospitalization within the first 30 days after the operation.

The authors reported that "the rate of death was 1.5 % before the checklist was introduced and declined to 0.8 % afterward ($P = 0.003$). Inpatient complications occurred in 11.0 % of patients at baseline and in 7.0 % after introduction of the checklist ($P < 0.001$)." So, accreditation may improve safety but what about improving quality?

In a recently published paper in the "*Journal of Hospital Medicine*" it was shown that accredited hospitals in the

U.S. outperformed non accredited hospitals on nationally standardized quality measures for acute myocardial infarction, heart failure, and pneumonia [2]. Dr. Mark Chassin stated that "This study validates that hospitals accredited by The Joint Commission are achieving their goal of continuously improving the quality of care they provide to their patients. By following these evidence-based care processes, hospitals will continue to improve the health outcomes their patient's experience." This important article can be accessed at: http://onlinelibrary.wiley.com/doi/10.1002/jhm.905/full.

There is a growing body of evidence which shows that accreditation, in fact, improves care and our specialty must be involved in this process and seen as advocates for patients and the healthcare quality and safety link between the medical and dental professions at a local and national level.

Internationally standardized education and training, standards based program accreditation, standardized board/college examinations and involvement in hospital accreditation, and other quality and safety initiatives will all be critical to the future of the specialty; however, we must be ahead of the curve when it comes to leveraging technology in order to improve OMS training, competency assessment, and patient care. Technological advances will revolutionize the way in which we train and assess our colleagues and the way that patient care is provided. Staying ahead of the curve will require a collaborative international effort. Fortunately, the specialty has an active international body—the IAOMS—which can function as the "hub of the wheel" for all of the initiatives mentioned above.

So these are just a few thoughts on an effective strategy for the specialty of maxillofacial surgery as our world becomes more globalized. There may be cultural and religious differences between people in different regions of the world; however, when it comes to healthcare, their goals and desires are the same. Therefore, variations in the way surgeons are trained, assessed, and the way care is provided must be minimized. The surest way of assuring the future viability of OMS as the recognized surgical specialty in the maxillofacial region is to be the best providers of high quality and safe patient care. The focus of our efforts going forward must be to assure that this goal is never compromised.

References

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Author Biography

John F. Helfrick served as a member of the Board of Commissioners of the Joint Commission and in 1997 and 1998 he served as Chairman of the Board. In 2000, Dr Helfrick stepped down from the Board of Commissioners to become Vice President of Joint Commission International. Dr. Helfrick is a Past President of the IAOMS, the International Society for Quality in Healthcare (ISQua) and is currently a Senior Consultant for Partners Harvard Medical International.