CMS Response to the American College of Surgeons OR Attire Statement

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The new American College of Surgeons (ACS) Statement is to be published in their October 2016 bulletin. A statement is not a guideline as it is unreferenced with no evidence based literature to support. The ACS Statement on OR Attire is in conflict with all other nationally recognized guidelines and standards. The language ACS used that a skull cap is "symbolic of the surgical profession," is not an acceptable argument. I am sure we all want the safest care for patients and that is to wear standardized PPE that includes complete hair covering.

Surgical site infections remain the largest percentage of all HAIs (Healthcare Associated Infections), reported around 34% in the latest 2013 reports from NHSN (National Healthcare Safety Network). From the CDC's NHSN SSI procedural manual introduction:

“In 2010, an estimated 16 million operative procedures were performed in acute care hospitals in the United States. A recent prevalence study found that SSIs were the most common healthcare-associated infection, accounting for 31% of all HAIs among hospitalized patients. The CDC healthcare-associated infection (HAI) prevalence survey found that there were an estimated 157,500 surgical site infections associated with inpatient surgeries in 2011. NHSN data for 2006-2008 (16,147 SSIs following 849,659 operative procedures) showed an overall SSI rate of 1.9%.

While advances have been made in infection control practices, including improved operating room ventilation, sterilization methods, barriers, surgical technique, and availability of antimicrobial prophylaxis, SSIs remain a substantial cause of morbidity, prolonged hospitalization, and death. SSI is associated with a mortality rate of 3%, and 75% of SSI-associated deaths are directly attributable to the SSI.”


The regulations for Surgical Services at 42 CFR § 482.51 require that surgical services must be provided in accordance with acceptable standards of practice.

The interpretive guidance states that “The infection control officer or officers must develop, implement and evaluate measures governing the identification, investigation, reporting, prevention and control of infections and communicable diseases within the hospital, including both healthcare–associated infections and community-acquired infections. Infection control policies should be specific to each department, service, and location, including off-site locations, and be evaluated and revised when indicated. The
successful development, implementation and evaluation of a hospital-wide infection prevention and control program requires frequent collaboration with persons administratively and clinically responsible for inpatient and outpatient departments and services, as well as, non-patient-care support staff, such as maintenance and housekeeping staff.

Mitigation of risks contributing to healthcare-associated infections:

* Surgery-related infection risk mitigation measures

* Adherence to nationally recognized infection prevention and control precautions, such as current CDC guidelines and recommendations, for infections/communicable diseases identified as present in the hospital; and

* Educating patients, visitors, caregivers, and staff, as appropriate, about infections and communicable diseases and methods to reduce transmission in the hospital and in the community;

The CMS Hospital Patient Safety Initiative drafted an Infection Control Worksheet (ICW) in order to determine compliance with Infection Control Conditions of Participation (CoP). The ICW (page 46), states, “Surgical attire (e.g. scrubs and surgical caps/hoods covering all head and facial hair are worn by all personnel and visitors in the semi-restricted and restricted areas.” The ICW requires surveyors to cite for incidences of noncompliance. The support for this item included on the Hospital ICW comes from the current 1999 CDC HICPAC SSI Guidelines, “Wear a cap or hood to fully cover hair on the head and face when entering the operating room”. (Cat IB) (note Cat I recommended practices are the highest level accorded by the CDC).

The following agencies/organizations have adopted the requirement of full head covering for surgical personnel:

- CDC - HICPAC Surgical Site Prevention guidelines (1999)
- AST (Association of Surgical Technologists) – Standards of Practice (2007)
- AORN – 2015 Guidelines for Perioperative Practice

The Association of Surgical Technologists 2007 Recommended Standards of Practice for Head Covers in the Operating Room, states the following:

**Standard of Practice I (attached includes references)**
The surgical team members are responsible for preventing SSI by properly donning and wearing the appropriate head cover or hood.

1. The surgical head cover or hood should be lint-free and cover all head and facial hair. Hair covers prevent the shedding of hair, squamous cells, and/or dandruff onto the scrub suit.

2. To prevent shedding onto the scrub suit, the first item of the surgical attire to be donned should be the hair cover.

3. Net caps, caps or skullcaps that do not offer complete hair cover should not be worn in the surgical suite.

4. Disposable bouffant and hood head covers are the preferred types of head cover, and offer the optimal complete coverage of head and facial hair. Reusable cloth hair covers are not recommended.

5. It is recommended that individuals with facial hair wear a disposable hood in order to ensure complete coverage.

AORN has the following evidence supporting Recommendation IV that, “All personnel should cover head and facial hair, including sideburns and nape of the neck, when in the semi-restricted and restricted areas.” The AORN Surgical Attire Recommended Practices was co-authored by an anesthesiologist from the American Society of Anesthesiologists and approved by a surgeon from the American College of Surgeons as part of the Recommended Practices Advisory Board.

There are a number of evidenced based studies supporting this practice:

2004 a study by Owens et al (J. of Hosp IC): 20 OR team members had their foreheads, eyebrows, and ears swabbed. They were significant numbers of organisms colonized including staph aureus, coagulase negative staph, diptheroids and others; the ear being the worst.

2000 a study by Mase et al (Micro Immunology); Isolated staph aureus from the nose, scalp, hair, and facial hair. MRSA was also cultured from the hair. These bacteria adhered tightly to the hair and could not be removed by conventional shampoo.

1990 a report by Mastro in the (NEJM); Investigation of an outbreak of SSIs by Group A Strep. This was a prolonged outbreak lasting 3 years and was traced directly to a surgical technician who was carrying strep on the scalp.

1973 a report by Dineen and Drusin (Lancet); 2 outbreaks of post-op wound infections were attributed to staff carrying staph aureus in their hair. Recommended that to reduce the amount of shedding from the scalp and hair, completely cover the head with a hood.
1965 a report by Summers (J of Clin Path); Found scalp hair tested for staph aureus from 3 groups; outpatient, inpatients, and OR staff. Bacteria were grown from the hair of all subjects. The study correlated post-op wound infections to the same phage type that were isolated from the hair of OR staff.