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Surgical Site Infections (SSIs): Can Clear Anesthesia Screen Drape Be Suppressing Self-Infection (SSI)?

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My opinion

Since the onset of pandemic, it has been anecdotally observed that incidence of surgical site infections (SSIs) may be coming down [1-6]. One of the explanations thought to be underlying this presumed reduction in SSIs is sterner as well as more complete use of personal protective equipment (PPE) not only by providers and staff in the perioperative areas as well as postoperative areas but also by patients and their families too [7-14]. Now the question arises whether incidence of SSIs will crop up again once the pandemic mitigating practices are loosened not only outside operating rooms but also inside them. There may be research investigators looking for answers and waiting for evidence. However, it may appear common sense to expect providers and staff continue pandemic mitigating practices as SSIs mitigating practices in the post-pandemic era as sternly and as completely as during pandemic. If that becomes difficult to incorporate and regulate, the microbiological evidence can be created by matching the bacterial genome (predominantly Staphylococcus aureus [15-20]) causing SSIs in patients to the bacterial genome harbored (predominantly in noses) within providers and staff in the operating rooms. If that turns out to be inconclusive [21-25], the evidence can search to match Staphylococcus aureus genome causing SSIs in patients to Staphylococcus aureus genome in their own noses and their families' noses. If that turns out to be true, it may make the case for patients and their families to continue pandemic mitigating practices as SSIs mitigating practices in the post-pandemic era as sternly and as completely as during pandemic. If that remains difficult, there may be few options at least in the operating rooms besides the administration of increasing number of gut microbiome-suppressing [26] perioperative antibiotics to patients after futuristically protocolizing and policing for perioperatively decolonizing and decontaminating not only patients' noses and their nasal microbiomes [27-30] but also their personal caregivers' noses and their nasal microbiomes as well as professional caregivers' noses and their nasal microbiomes including healthcare providers' noses and their nasal microbiomes as well as healthcare staff's noses and their nasal microbiomes. In the interim, the surgical site preps [31-32] can be delayed until after the patients' airways have been intubated and secured so that their aerosols do not get deposited on to their surgical sites after preps have been done. If the patients are undergoing procedures under sedation, the patients can be made to have oxygen mask covering their faces to reduce their droplets directly depositing onto the surgical sites after they have been prepped. However, unless the surgical sites and airways are common and one and the same, the best option in all the cases may be placing a clear anesthesia screen drape [33] as SSI (suppressing self-infection [34]) screen drape before the surgical site is prepped so that even awake patients during Cesarean sections [35-47] can be free to talk, laugh, cough, burp and vomit without soiling the being prepped surgical sites with their droplets from their mouths and noses. It may not be too much to ask and too much to do considering that providers and staff are always expected to re-prep the surgical sites when they inadvertently touch and thus contaminate the prepped surgical sites. Moreover, it can be envisioned for future clinical microbiological research investigators to decipher that not only bacterial genomes but also viral genomes may be discovered not only from prepped surgical sites but also from SSI screen drapes to outline whether SSIs are the reflection of patients as reservoirs [48] or their personal or professional caregivers as reservoirs with portal of exit being their mouths and noses and modes of transmission being breathing, talking, laughing, coughing, burping, vomiting without protecting prepped surgical sites as portal of entry by covering their noses and mouths with stern and complete PPE and clear SSI screen drapes as additional barriers in-between.

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