2017 Centers for Disease Control and Prevention Guideline for the Prevention of

Surgical Site Infection

Summary

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| **Category IA: A strong recommendation supported by high to moderate–quality evidence suggesting net clinical benefits or harms.** | | |
| **Element** | **Validated In Place** | **Working Towards having in Place** |
| Administer the appropriate parenteral prophylactic antimicrobial agents before skin incision in all cesarean section procedures.  \*Change from form high-risk cesarean section, administer the prophylactic antimicrobial agent immediately after the umbilical cord is clamped. *Category IA* |  |  |
| In clean and clean contaminated procedures, do not administer additional prophylactic antimicrobial agent doses after the surgical incision is closed in the operating room, even in the presence of a drain.  \*Change from maintain therapeutic levels of the agent in serum and tissues throughout the operation and until, at most, a few hours after the incision is closed in the operating room. *Category IA* |  |  |
| Implement perioperative glycemic control and use blood glucose target levels less than 200 mg/dL in patients with and without diabetes.  \*Change from adequately control serum blood glucose levels in all diabetic patients and particularly avoid hyperglycemia perioperatively. *Category IB* |  |  |
| Maintain perioperative normothermia.  \*Not previously addressed. |  |  |
| For patients with normal pulmonary function undergoing general anesthesia with endotracheal intubation, administer increased FIO2 during surgery and after extubation in the immediate postoperative period. To optimize tissue oxygen delivery, maintain perioperative normothermia and adequate volume replacement.  \*Change from no recommendation to provide measures that enhance wound space oxygenation to prevent SSI. *Unresolved issue* |  |  |
| Perform intraoperative skin preparation with an alcohol-based antiseptic agent unless contraindicated.  \*Change from use an appropriate antiseptic agent for skin preparation (Table 6). *Category IB* |  |  |
| **Category IA: A strong recommendation supported by high to moderate–quality evidence suggesting net clinical benefits or harms.** | | |
| **Element** | **Validated In Place** | **Working Towards having in Place** |
| In prosthetic joint arthroplasty in clean and clean-contaminated procedures, do not administer additional antimicrobial prophylaxis doses after the surgical incision is closed in the operating room, even in the presence of a drain.  \*Change from maintain therapeutic levels of the agent in serum and tissues throughout the operation and until, at most, a few hours after the incision is closed in the operating room. Category IA |  |  |
| **Comments:** | | |

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| **Category IB: A strong recommendation supported by low-quality evidence suggesting net clinical benefits or harms or an accepted practice supported by low to very low–quality evidence.** | | |
| **Element** | **Validated In Place** | **Working Towards having in Place** |
| Administer preoperative antimicrobial agents only when indicated based on published clinical practice guidelines and timed such that a bactericidal concentration of the agents is established in the serum and tissues when the incision is made.  \*Change from administer a prophylactic antimicrobial agent only when indicated, and select it based on its efficacy against the most common pathogens causing SSI for a specific operation (Table 4) and published recommendations. *Category IA* |  |  |
| Do not apply antimicrobial agents (i.e., ointments, solutions, or powders) to the surgical incision for the prevention of SSI.  \*No previous mention. |  |  |
| Advise patients to shower or bathe (full body) with soap (antimicrobial or nonantimicrobial) or an antiseptic agent on at least the night before the operative day.  \*No previous mention. |  |  |
| Do not withhold transfusion of necessary blood products from surgical patients as a means to prevent SSI.  \*No change. |  |  |
| **Comments:** | | |

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| **Category II: A weak recommendation supported by any quality evidence suggesting a trade-off between clinical benefits and harms.** | | | |
| **Element** | **Validated In Place** | **Working Towards Meeting Standard** | **Will not Implement** |
| Application of autologous platelet-rich plasma is not necessary for the prevention of SSI.  \*No previous mention. |  |  |  |
| Consider the use of triclosan-coated sutures for the prevention of SSI.  \*No previous mention. |  |  |  |
| Application of a microbial sealant immediately after intraoperative skin preparation is not necessary for the prevention of SSI.  No previous mention. |  |  |  |
| The use of plastic adhesive drapes with or without antimicrobial properties is not necessary for the prevention of SSI.  \*No previous mention. |  |  |  |
| Consider intraoperative irrigation of deep or subcutaneous tissues with aqueous iodophor solution for the prevention of SSI. Intraperitoneal lavage with aqueous iodophor solution in contaminated or dirty abdominal procedures is not necessary.  \*No previous mention. |  |  |  |
| Comment: | | | |