

Considerations for SAP timing

Half-life of antibiotics may affect serum and tissue concentrations, so the half-life of administered antibiotics should be taken into account in order to establish the exact time of administration within the 120-minute recommendation.

Antibiotics with a short half-life include cefazolin, cefoxitin, and penicillin in general and should be administered closer to the incision time (<60 minutes).

Underlying factors in patients may also affect drug disposition (e.g., malnourishment, obesity, cachexia, or renal disease with protein loss may result in suboptimal antibiotic exposure through increased antibiotic clearance in the presence of normal or augmented renal function).

An example of surgery not requiring SAP is clean orthopaedic surgery not involving implantation of foreign materials.

There are recommendations about re-dosing if a procedure exceeds two half-lives of the drug or if there is excessive blood loss. However, not enough evidence is available for this recommendation.