

Supplemental Digital Content 3. Surgical procedure classification

For our analyses, procedures which are typically performed with minimal or minimal-moderate sedation, including cardiac catheterization procedures, ophthalmic procedures (with the exception of repair of a retinal tear), and diagnostic procedures (with the exception of endoscopic procedures) were not classified as surgical procedures.

The following procedures grouped by Clinical Classification Software were classified as having more than low risk (moderate/high-risk surgeries) according to AHA criteria¹: heart valve procedures; coronary artery bypass graft (CABG); other operating room (OR) heart procedures; laminectomy, excision intervertebral disc; thyroidectomy, partial or complete; other therapeutic endocrine procedures; lobectomy or pneumonectomy or other excision of lung tissue; other OR therapeutic procedures on respiratory system and mediastinum; extracorporeal circulation auxiliary to open heart procedures; endarterectomy, vessel of head and neck; aortic resection, replacement or anastomosis; peripheral vascular bypass; other vascular bypass and shunt, not heart; creation, revision and removal of arteriovenous fistula or vessel-to-vessel cannula for dialysis; other OR procedures on vessels of head and neck; embolectomy and endarterectomy of lower limbs; other OR procedures on vessels other than head and neck; procedures on spleen; other therapeutic procedures, hemic and lymphatic system; colostomy, temporary and permanent; ileostomy and other enterostomy; gastrectomy, partial and total; small bowel resection; colorectal resection; local excision of large intestine lesion (not endoscopic); appendectomy; cholecystectomy and common duct exploration; inguinal and femoral hernia repair; other hernia repair; laparoscopy (GI only); exploratory laparotomy; excision; lysis peritoneal adhesions; other OR upper GI therapeutic procedures; other OR lower GI therapeutic procedures; other OR gastrointestinal therapeutic procedures; nephrectomy, partial or complete; kidney transplant; genitourinary incontinence procedures; procedures on the urethra; other OR therapeutic procedures of urinary tract; transurethral resection of prostate (TURP); open prostatectomy; oophorectomy, unilateral and bilateral; other operations on ovary; removal of ectopic pregnancy; hysterectomy, abdominal and vaginal; other excision of cervix and uterus; repair of cystocele and rectocele, obliteration of vaginal vault; other OR therapeutic procedures, female organs; cesarean section; partial excision bone; arthroscopy; division of joint capsule, ligament or cartilage; arthroplasty knee; hip replacement, total and partial; arthroplasty other than hip or knee; amputation of lower extremity; spinal fusion; other OR therapeutic procedures on bone; other OR therapeutic procedures on musculoskeletal system; organ transplantation (other than bone marrow, corneal or kidney).

The following were classified as low-risk procedures for which anesthesia would be reasonable: decompression peripheral nerve; repair of retinal tear, detachment; tympanoplasty; myringotomy; mastoidectomy; other therapeutic ear procedures; plastic procedures on nose; dental procedures; tonsillectomy and/or adenoidectomy; other OR therapeutic procedures on nose, mouth and pharynx; tracheostomy, temporary and permanent; tracheoscopy and laryngoscopy with biopsy; incision of pleura, thoracentesis, chest drainage; insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator; varicose vein stripping, lower limb; bone marrow transplant; injection or ligation of esophageal varices; esophageal dilatation; upper gastrointestinal endoscopy, biopsy; gastrostomy, temporary and permanent; colonoscopy and biopsy; proctoscopy and anorectal biopsy; hemorrhoid procedures; transurethral excision, drainage or removal urinary obstruction; ureteral catheterization; nephrotomy and nephrostomy; extracorporeal lithotripsy, urinary; circumcision; other OR therapeutic procedures, male genital; ligation or occlusion of fallopian tubes; other operations on fallopian tubes; abortion (termination of pregnancy); dilatation and curettage (D&C), aspiration after delivery or abortion; diagnostic dilatation and curettage (D&C); episiotomy; bunionectomy or repair of toe deformities; excision of semilunar cartilage of knee; arthrocentesis; injections and aspirations of muscles, tendons, bursa; joints and soft tissue; other OR therapeutic procedures on joints; breast biopsy and other diagnostic procedures on breast; lumpectomy, quadrantectomy of breast; mastectomy; incision and drainage, skin and subcutaneous tissue; debridement of wound, infection or burn; excision of skin lesion; suture of skin and subcutaneous tissue; skin graft; other OR therapeutic procedures on skin and breast.

References

1. Fleisher LA, Fleischmann KE, Auerbach AD, Barnason SA, Beckman JA, Bozkurt B, Davila-Roman VG, Gerhard-Herman MD, Holly TA, Kane GC, Marine JE, Nelson MT, Spencer CC, Thompson A, Ting HH, Uretsky BF, Wijeyesundera DN, Anderson JL, Halperin JL, Albert NM, Brindis RG, Curtis LH, DeMets D, Gidding S, Hochman JS, Kovacs RJ, Ohman EM, Pressler SJ, Sellke FW, Shen WK: 2014 ACC/AHA guideline on perioperative cardiovascular evaluation and management of patients undergoing noncardiac surgery: Executive summary a report of the american college of cardiology/american heart association task

force on practice guidelines 2014; 130:pp 2215-45