

▲ Measure #193: Perioperative Temperature Management

2011 PHYSICIAN QUALITY REPORTING OPTIONS FOR INDIVIDUAL MEASURES: CLAIMS, REGISTRY

DESCRIPTION:

Percentage of patients, regardless of age, undergoing surgical or therapeutic procedures under general or neuraxial anesthesia of 60 minutes duration or longer, except patients undergoing cardiopulmonary bypass, for whom *either* active warming was used intraoperatively for the purpose of maintaining normothermia, OR at least one body temperature equal to or greater than 36 degrees Centigrade (or 96.8 degrees Fahrenheit) was recorded within the 30 minutes immediately before or the 15 minutes immediately after anesthesia end time

INSTRUCTIONS:

This measure is to be reported each time a surgical or therapeutic procedure not involving cardiopulmonary bypass is performed under general or neuraxial anesthesia during the reporting period. There is no diagnosis associated with this measure. It is anticipated that clinicians who provide the listed anesthesia services as specified in the denominator coding will submit this measure.

Measure Reporting via Claims:

CPT codes are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting the measure via claims, submit the listed CPT Procedure code and the appropriate CPT Category II codes OR the CPT Category II code(s) with the modifier. The modifiers allowed for this measure are: 1P- Medical reasons or 8P- reasons not otherwise specified. All measure-specific coding should be reported on the claim(s) representing the eligible encounter.

Measure Reporting via Registry:

CPT codes are used to identify patients who are included in the measure's denominator. The numerator options as described in the quality-data codes are used to report the numerator of the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:

All patients, regardless of age, undergoing surgical or therapeutic procedures under general or neuraxial anesthesia of 60 minutes duration or longer, except patients undergoing cardiopulmonary bypass

Denominator Criteria (Eligible Cases):

Patient encounter during the reporting period (CPT): Anesthesia codes for surgical or therapeutic procedures under general or neuraxial anesthesia:

00100, 00102, 00103, 00104, 00120, 00124, 00126, 00140, 00142, 00144, 00145, 00147, 00148, 00160, 00162, 00164, 00170, 00172, 00174, 00176, 00190, 00192, 00210, 00211, 00212, 00214, 00215, 00216, 00218, 00220, 00222, 00300, 00320, 00322, 00326, 00350, 00352, 00400, 00402, 00404, 00406, 00410, 00450, 00452, 00454, 00470, 00472, 00474,

00500, 00520, 00522, 00524, 00528, 00529, 00530, 00532, 00534, 00537, 00539, 00540, 00541, 00542, 00546, 00548, 00550, 00560, 00566, 00580, 00600, 00604, 00620, 00622, 00625, 00626, 00630, 00632, 00634, 00635, 00640, 00670, 00700, 00702, 00730, 00740, 00750, 00752, 00754, 00756, 00770, 00790, 00792, 00794, 00796, 00797, 00800, 00802, 00810, 00820, 00830, 00832, 00834, 00836, 00840, 00842, 00844, 00846, 00848, 00851, 00860, 00862, 00864, 00865, 00866, 00868, 00870, 00872, 00873, 00880, 00882, 00902, 00904, 00906, 00908, 00910, 00912, 00914, 00916, 00918, 00920, 00921, 00922, 00924, 00926, 00928, 00930, 00932, 00934, 00936, 00938, 00940, 00942, 00944, 00948, 00950, 00952, 01112, 01120, 01130, 01140, 01150, 01160, 01170, 01173, 01180, 01190, 01200, 01202, 01210, 01212, 01214, 01215, 01220, 01230, 01232, 01234, 01250, 01260, 01270, 01272, 01274, 01320, 01340, 01360, 01380, 01382, 01390, 01392, 01400, 01402, 01404, 01420, 01430, 01432, 01440, 01442, 01444, 01462, 01464, 01470, 01472, 01474, 01480, 01482, 01484, 01486, 01490, 01500, 01502, 01520, 01522, 01610, 01620, 01622, 01630, 01634, 01636, 01638, 01650, 01652, 01654, 01656, 01670, 01680, 01682, 01710, 01712, 01714, 01716, 01730, 01732, 01740, 01742, 01744, 01756, 01758, 01760, 01770, 01772, 01780, 01782, 01810, 01820, 01829, 01830, 01832, 01840, 01842, 01844, 01850, 01852, 01860, 01924, 01925, 01926, 01930, 01931, 01932, 01933, 01935, 01936, 01951, 01952, 01961, 01962, 01963, 01965, 01966, 01968, 01969

NUMERATOR:

Patients for whom *either*

- Active warming was used intraoperatively for the purpose of maintaining normothermia
OR
- At least one body temperature equal to or greater than 36 degrees Centigrade (or 96.8 degrees Fahrenheit) was recorded within the 30 minutes immediately before or the 15 minutes immediately after anesthesia end time

Numerator Instructions: The anesthesia time used for this measure should be the time recorded in the anesthesia record.

Definition:

For purposes of this measure, "active warming" – is limited to over-the-body active warming (e.g., forced air, warm-water garments, and resistive heating blankets).

Numerator Quality-Data Coding Options for Reporting Satisfactorily:

Active Warming Used Intraoperatively OR At Least One Body Temperature Equal to or Greater than 36 Degrees Centigrade Recorded Within Designated Timeframe
(Two CPT II codes [4250F & 4255F] are required on the claim form to submit this numerator option)

CPT II 4250F: Active warming used intraoperatively for the purpose of maintaining normothermia, OR at least one body temperature equal to or greater than 36 degrees Centigrade (or 96.8 degrees Fahrenheit) recorded within the 30 minutes immediately before or the 15 minutes immediately after anesthesia end time.

AND

CPT II 4255F: Duration of general or neuraxial anesthesia 60 minutes or longer, as documented in the anesthesia record

OR

Active Warming Not Performed OR at Least One Body Temperature Equal to or Greater than 36 Degrees Centigrade not Achieved Within Designated Timeframe for one of the following Medical Reasons:

(Two CPT II codes [4250F-1P & 4255F] are required on the claim form to submit this numerator option)

Append a modifier (1P) to CPT Category II code 4250F to report one of the following documented circumstances that appropriately exclude patients from the denominator.

4250F with 1P: Intentional hypothermia OR active warming not indicated due to anesthetic technique: peripheral nerve block without general anesthesia, OR monitored anesthesia care

AND

CPT II 4255F: Duration of general or neuraxial anesthesia 60 minutes or longer, as documented in the anesthesia record

OR

If patient does not meet denominator inclusion because anesthesia time as indicated on the anesthesia record is less than 60 minutes duration (including anesthesia services provided using monitored anesthesia care [MAC] or peripheral nerve block [PNB] less than 60 minutes duration):

(One CPT II code [4256F] is required on the claim form to submit this numerator option)

CPT II 4256F: Duration of general or neuraxial anesthesia less than 60 minutes, as documented in the anesthesia record

OR

Active Warming Not Performed OR at Least One Body Temperature Equal to or Greater than 36 Degrees Centigrade Not Achieved Within Designated Timeframe, Reason Not Specified

(Two CPT II codes [4250F-8P & 4255F] are required on the claim form to submit this numerator option)

Append a reporting modifier (8P) to CPT Category II code 4250F to report circumstances when the action described in the numerator is not performed and the reason is not otherwise specified.

4250F with 8P: Active warming not performed OR at least one body temperature equal to or greater than 36 degrees Centigrade not achieved within designated timeframe, reason not otherwise specified

AND

CPT II 4255F: Duration of general or neuraxial anesthesia 60 minutes or longer, as documented in the anesthesia record

RATIONALE:

Anesthetic-induced impairment of thermoregulatory control is the primary cause of perioperative hypothermia. Even mild hypothermia (1-2°C below normal) has been associated in randomized trials with a number of adverse consequences, including: increased susceptibility to infection, impaired coagulation and increased transfusion requirements, cardiovascular stress and cardiac complications, post-anesthetic shivering and thermal discomfort. Whether the benefits of avoiding hypothermia in patients undergoing cardiopulmonary bypass (CPB) outweigh potential harm is uncertain, because known complications of CPB include cerebral injury, which may be mitigated by mild hypothermia. Therefore, patients undergoing CPB are excluded from the denominator population

for this measure. Several methods to maintain normothermia are available to the anesthesiologist in the perioperative period; various studies have demonstrated the superior efficacy of over-the-body active warming (e.g., forced air, warm-water garments, and resistive heating blankets). Data elements required for the measure can be captured and the measure is actionable by the physician.

Existing hospital-level measures for this topic were consulted and, to the extent feasible, harmonization between physician- and hospital-level measurement was achieved.

CLINICAL RECOMMENDATION STATEMENTS:

Preoperative patient management

Assessment: Identify patient's risk factors for unplanned perioperative hypothermia. Measure patient temperature on admission. Determine patient's thermal comfort level (ask the patients if they are cold). Assess for other signs and symptoms of hypothermia (shivering, piloerection, and/or cold extremities).

Interventions: Institute preventive warming measures for patients who are normothermic (normothermia is defined as a core temperature range from 36°C-38°C (96.8°F-100.4°F)). A variety of measures may be used, unless contraindicated. Passive insulation may include warmed cotton blankets, socks, head covering, limited skin exposure, circulating water mattresses, and increase in ambient room temperature (minimum 68°F- 75°F). Institute active warming measures for patients who are hypothermic (defined as a core temperature less than 36°C). Active warming is the application of a forced air convection warming system. Apply appropriate passive insulation and increase the ambient room temperature (minimum 68°F-75°F). Consider warmed intravenous (IV) fluids. (ASPAN)

Intraoperative patient management

Assessment: Identify patient's risk factors for unplanned perioperative hypothermia. Determine patient's thermal comfort level (ask the patients if they are cold). Assess for other signs and symptoms of hypothermia (shivering, piloerection, and/or cold extremities). Monitor patient's temperature intraoperatively.

Intervention: Implement warming methods. (ASPAN)

Maintenance of body temperature in a normothermic range is recommended for most procedures other than during periods in which mild hypothermia is intended to provide organ protection (e.g., during high aortic cross-clamping). (Class I Recommendation, Level of Evidence B) (ACC/AHA)