ASA Score

https://www.mdcalc.com/calc/10024/asa-physical-status-asa-classification

- Comparison of the Combination of Interscalene Block and Superficial Cervical Block Anaesthesia with Interscalene Block Anaesthesia in Shoulder Surgery Operations
- The LITTability study - evaluation of the applicability of LITT in a real-world cohort of glioma patients
- Risk factors for preoperative anxiety and depression in patients with unruptured intracranial aneurysms scheduled for endovascular embolization
- Erector spinae plane block (ESPB) vs. pericapsular nerve group (PENG) block in total hip arthroplasty in elderly patients: a randomized, double-blinded, controlled trial
- Necessary Intensity of Monitoring After Elective Craniotomies: A Prediction Score for Postoperative Complications to Stratify Postoperative Monitoring
- Establishing stereotactic brain biopsies in outpatient care as the gold standard: an argument for enhanced accessibility and patient-centric medicine
- Postoperative analgesic effects of combined transversus abdominis plane block and anterior approach of sacral plexus block in patients undergoing laparoscopic radical prostatectomy: A randomized controlled trial
- Traumatic odontoid fracture - Proposal of a treatment algorithm

1 No organic pathology or patients in whom the pathological process is localized and does not cause any systemic disturbance or abnormality.

Examples: This includes patients suffering with fractures unless shock, blood loss, emboli or systemic signs of injury are present in an individual who would otherwise fall in Class 1. It includes congenital deformities unless they are causing systemic disturbance. Infections that are localized and do not cause fever, many osseous deformities, and uncomplicated hernias are included. Any type of operation may fall in this class since only the patient's physical condition is considered.

2 A moderate but definite systemic disturbance, caused either by the condition that is to be treated or surgical intervention or which is caused by other existing pathological processes, forms this group.

Examples: Mild diabetes. Functional capacity I or IIa. Psychotic patients unable to care for themselves. Mild acidosis. Anemia moderate. Septic or acute pharyngitis. Chronic sinusitis with postnasal discharge. Acute sinusitis. Minor or superficial infections that cause a systemic reaction. (If there is no systemic reaction, fever, malaise, leukocytosis, etc., aid in classifying.) Nontoxic adenoma of thyroid that causes but partial respiratory obstruction. Mild thyrotoxicosis. Acute osteomyelitis (early). Chronic osteomyelitis. Pulmonary tuberculosis with involvement of pulmonary tissue insufficient to embarrass activity and without other symptoms.

3 Severe systemic disturbance from any cause or causes. It is not possible to state an absolute measure of severity, as this is a matter of clinical judgment. The following examples are given as suggestions to help demonstrate the difference between this class and Class 2.

Examples: Complicated or severe diabetes. Functional capacity IIb. Combinations of heart disease and respiratory disease or others that impair normal functions severely. Complete intestinal obstruction that has existed long enough to cause serious physiological disturbance. Pulmonary tuberculosis that, because of the extent of the lesion or treatment, has induced vital capacity sufficiently to cause tachycardia or dyspnea. Patients debilitated by prolonged illness with weakness of all or several

systems. Severe trauma from accident resulting in shock, which may be improved by treatment. Pulmonary abscess.

4 Extreme systemic disorders which have already become an eminent threat to life regardless of the type of treatment. Because of their duration or nature there has already been damage to the organism that is irreversible. This class is intended to include only patients that are in an extremely poor physical state. There may not be much occasion to use this classification, but it should serve a purpose in separating the patient in very poor condition from others.

Examples: Functional capacity III -(Cardiac Decompensation). Severe trauma with irreparable damage. Complete intestinal obstruction of long duration in a patient who is already debilitated. A combination of cardiovascular-renal disease with marked renal impairment. Patients who must have anesthesia to arrest a secondary hemorrhage where the patient is in poor condition associated with marked loss of blood. Emergency Surgery: An emergency operation is arbitrarily defined as a surgical procedure which, in the surgeon's opinion, should be performed without delay.

5 Emergencies that would otherwise be graded in Class 1 or Class 2.

6 Emergencies that would otherwise be graded as Class 3 or Class 4.

In a study of Senders et al. from Boston and Utrecht, patients were extracted from the National Surgical Quality Improvement Program registry (2005-2015) and analyzed using multivariable logistic regression.

A total of 7376 patients were identified, of which 948 (12.9%) experienced a major complication. The most common major complications were reoperation (5.1%), venous thromboembolism (3.5%), and death (2.6%). Furthermore, 15.6% stayed longer than 10 d, and 11.5% were readmitted within 30 d after surgery. The most common reasons for reoperation and readmission were intracranial hemorrhage (18.5%) and wound-related complications (11.9%), respectively. Multivariable analysis identified older age, higher body mass index, higher American Society of Anesthesiologists (ASA) classification, dependent functional status, elevated preoperative white blood cell count (white blood cell count WBC, >12 000 cells/mm3), and longer operative time as predictors of major complication (all P < .001). Higher ASA classification, dependent functional status, elevated WBC, and ventilator dependence were predictors of extended length of stay (all P < .001). Higher ASA classification and elevated WBC were predictors of reoperation (both P < .001). Higher ASA classification and dependent functional status were predictors of readmission (both P < .001). Older age, higher ASA classification, and dependent functional status were predictors of death (all P < .001).

This study provides a descriptive analysis and identifies predictors for short-term complications, including death, after craniotomy for primary malignant brain tumors [1].

[1]
Senders JT, Muskens IS, Cote DJ, Goldhaber NH, Dawood HY, Gormley WB, Broekman MLD, Smith TR. Thirty-Day Outcomes After Craniotomy for Primary Malignant Brain Tumors: A National Surgical Quality Improvement Program Analysis. Neurosurgery. 2018 Dec 1;83(6):1249-1259. doi: 10.1093/neuros/nyy001. PubMed PMID: 29481613.