

Unplanned reoperation

A term used by [surgeons](#) for the duplication of a surgical [procedure](#). Repeating [surgery](#) may involve surgery at the same site, at another site for the same condition, or to repair a feature from previous surgery.

The reoperation rate has been scarcely discussed in the literature so far, but it has been proposed as a feasible parameter to evaluate the [outcome](#).

Previous studies focused on pediatric populations ^{1) 2)}, or have evaluated only an early reoperation rate within 7 days ³⁾. As proposed by other surgical disciplines ^{4) 5) 6) 7)}, the 30-day reoperation rate could also be a valid indicator for reliable measurement of health care quality in the field of neurosurgery.

Although reoperation has been utilized as a metric of quality of care, no national analysis has evaluated the rate of, reasons for, and predictors of [unplanned reoperation after craniotomy for tumor](#).

Unplanned cranial reoperation was primarily associated with operative indices, rather than preoperative characteristics, suggesting that reoperation may have utility as a quality indicator. Hypertension and [thrombocytopenia](#) are potentially modifiable predictors of reoperation for hematoma, which were associated greater odds of 30-day death ⁸⁾.

Postoperative bleeding

The aim of a study was to investigate the incidence of unplanned reoperations from all causes due to bleeding in neurosurgical patients. The medical records of patients who received neurosurgical procedures at the hospital were retrospectively reviewed and data of patients who received reoperations were extracted and summarized. A literature review was conducted of the Medline, Cochrane, EMBASE, and Google Scholar databases up to November 2013. The main outcome measure was the rate of unplanned reoperations due to bleeding. At this hospital, 68 patients with a mean age of 41.5 ± 21.5 years (range, 7 months to 76 years) received an unplanned reoperation. More than 70% of the patients were older than 18 years, 64.7% were males, and 94.1% had cranial surgery. Almost 60% of the patients received >1 blood transfusion (58.8%) after the first surgery. Of the 68 patients, 35 (51.5%) received a second operation due to bleeding. Univariate logistic regression analysis only showed that an increasing time interval between the first and second surgery was associated with a decreased chance of the reoperation being performed due to bleeding (odds ratio [OR]=0.843, 95% confidence interval [CI]: 0.720-0.987; P=.033). Of 229 studies identified, 5 retrospective reports with a total of 1375 patients were included in the analysis. The rate of reoperations for bleeding in the 5 studies ranged from 4.2% to 31.5%. Employing measures to reduce postoperative bleeding may help reduce the rate of unplanned neurosurgical reoperations ⁹⁾.

Spinal reoperation

see [Spinal reoperation](#).

¹⁾

Marini H, Merle V, Derrey S, Lebaron C, Josset V, Langlois O, Gilles Baray M, Frebourg N, Proust F, Czernichow P (2012) Surveillance of unplanned return to the operating theatre in neurosurgery combined with a mortality-morbidity conference: results of a pilot survey. *BMJ Qual Saf* 21:432-438. <https://doi.org/10.1136/bmjqs-2011-000355>

2)

Mukerji N, Jenkins A, Nicholson C, Mitchell P (2012) Unplanned reoperation rates in pediatric neurosurgery: a single center experience and proposed use as a quality indicator. *J Neurosurg Pediatr* 9: 665-669. <https://doi.org/10.3171/2012.2.PEDS11305>

3)

McLaughlin N, Jin P, Martin NA (2015) Assessing early unplanned reoperations in neurosurgery: opportunities for quality improvement. *J Neurosurg* 123:198-205. <https://doi.org/10.3171/2014.9.JNS14666>

4)

Birkmeyer JD, Hamby LS, Birkmeyer CM, Decker MV, Karon NM, Dow RW (2001) Is unplanned return to the operating room a useful quality indicator in general surgery? *Arch Surg* 136:405- 411

5)

Burns EM, Bottle A, Almoudaris AM, Mamidanna R, Aylin P, Darzi A, Nicholls RJ, Faiz OD (2013) Hierarchical multilevel analysis of increased caseload volume and postoperative outcome after elective colorectal surgery. *Br J Surg* 100:1531-1538. <https://doi.org/10.1002/bjs.9264>

6)

Pucciarelli S, Chiappetta A, Giacomazzo G, Barina A, Gennaro N, Rebonato M, Nitti D, Saugo M (2016) Surgical Unit volume and 30-day reoperation rate following primary resection for colorectal cancer in the Veneto Region (Italy). *Tech Coloproctol* 20:31-40. <https://doi.org/10.1007/s10151-015-1388-0>

7)

Zaidi R, Macgregor AJ, Goldberg A (2016) Quality measures for total ankle replacement, 30-day readmission and reoperation rates within 1 year of surgery: a data linkage study using the NJR data set. *BMJ Open* 6:e011332. <https://doi.org/10.1136/bmjopen-2016-011332>

8)

Dasenbrock HH, Yan SC, Chavakula V, Gormley WB, Smith TR, Claus E, Dunn IF. 145 Unplanned Reoperation After Craniotomy for Tumor: A National Surgical Quality Improvement Program Analysis. *Neurosurgery*. 2016 Aug;63 Suppl 1:159. doi: 10.1227/01.neu.0000489715.29455.af. PubMed PMID: 27399424.

9)

Zheng XR, Chen T, Yang YF, Rao W, Wang GY, Zhang SH, Fei Z. Unplanned Reoperations in Neurosurgical Patients Due to Postoperative Bleeding: A Single-Center Experience and Literature Review. *Medicine (Baltimore)*. 2015 Jun;94(23):e739. PubMed PMID: 26061301.

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