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**Search details**

Day case thyroidectomy/thyroid surgery – safety/outcomes

**Resources searched**

NHS Evidence; TRIP Database; Cochrane Library; CINAHL; EMBASE; MEDLINE; PsychINFO; Google Scholar; Google Advanced Search

**Database search terms**: Thyroidectomy, exp THYROIDECTOMY, thyroid, exp THYROID GLAND, (surgery OR surgical OR operate OR operation), exp GENERAL SURGERY, (“day case” OR day-case OR “day surgery” OR “short stay”), outpatient*, “same day”, exp OUTPATIENTS, ambulatory, exp AMBULATORY SURGICAL PROCEDURES, exp AMBULATORY SURGERY/

**Evidence search string(s)**: (thyroidectomy OR “thyroid surgery”) (“day case” OR outpatient OR ambulatory OR “short stay”)

**Google search string(s)**: (thyroidectomy OR “thyroid surgery”) (“day case” OR outpatient OR ambulatory OR “short stay”)

**Guidelines and Policy**

Nothing found

**Evidence-based reviews**

Nothing found
Published research – Databases

Ambulatory thyroid surgery: do the risks overcome the benefits?.

Author(s) Doran HE, Palazzo F
Citation: Presse Medecine, March 2014, vol./is. 43/3(291-6), 0755-4982:0755-4982 (2014 Mar)
Publication Date: March 2014
Abstract: With appropriate selection, ambulatory thyroid surgery is feasible. Thyroid surgery is unique amongst ambulatory procedures in that it is associated with a small but unpredictable risk of rapid onset compromising cervical haematoma that may require immediate treatment. Reports of "safety" are frequently from series which are too small to give complete assurance. Postoperative haemorrhage is the only issue that makes day case surgery questionable because other risks (hypocalcaemia, nerve injury) can be mitigated. Studies suggest 20-60% bleed will occur after 6 hours but the clinical severity of later bleeds is unclear. The reliability of more specific data from complications occurring at home is liable to under-reporting. The need for a tracheostomy is considerably higher when there is a delay in the recognition of symptoms (as it could be at home) and re-intervention; this underlies the increased morbidity with laryngeal and supraglottic oedema that may accompany a delay in the treatment of post-thyroidectomy bleeds. The estimated cost savings from ambulatory thyroid surgery may be an over-estimate given that true costs may be reduced by optimisation of ward staffing. Copyright 2014 Elsevier Masson SAS. All rights reserved.

Source: Medline

American thyroid association statement on outpatient thyroidectomy.

Author(s) Terris DJ, Snyder S, Carneiro-Pita D, Inabnet WB 3rd, Kandil E, Orloff L, Shindo M, Tufano RP, Tuttle RM, Urken M, Yeh MW, American Thyroid Association Surgical Affairs Committee Writing Task Force
Citation: Thyroid, October 2013, vol./is. 23/10(1193-202), 1050-7256;1557-9077 (2013 Oct)
Publication Date: October 2013
Abstract: BACKGROUND: The primary goals of this interdisciplinary consensus statement are to define the eligibility criteria for outpatient thyroidectomy and to explore preoperative, intraoperative, and postoperative factors that should be considered in order to optimize the safe and efficient performance of ambulatory surgery.SUMMARY: A series of criteria was developed that may represent relative contraindications to outpatient thyroidectomy, and these fell into the following broad categories: clinical, social, and procedural issues. Intraoperative factors that bear consideration are enumerated, and include choice of anesthesia, use of nerve monitoring, hemostasis, management of the parathyroid glands, wound closure, and extubation. Importantly, postoperative factors are described at length, including suggested discharge criteria and recognition of complications, especially bleeding, airway distress, and hypocalcemia.CONCLUSIONS: Outpatient thyroidectomy may be undertaken safely in a carefully selected patient population provided that certain precautionary measures are taken to maximize communication and minimize the likelihood of complications.

Source: Medline

Increased efficiency of endocrine procedures performed in an ambulatory operating room.

Author(s) Clark N, Schneider DF, Vrabec S, Bauer PS, Chen H, Sippel RS
Citation: Journal of Surgical Research, September 2013, vol./is. 184/1(200-3), 0022-4804;1095-8673 (2013 Sep)
Publication Date: September 2013
Abstract: BACKGROUND: Thyroid and parathyroid procedures historically have been viewed as inpatient procedures. Because of the advancements in surgical techniques, these procedures were transferred from the inpatient operating room (OR) to the outpatient OR at a single academic institution approximately 7 y ago. The goal of this study was to determine whether this change has decreased turnover times and maximized OR utilization.METHODS: We performed a retrospective review of 707 patients undergoing thyroid (34%) and parathyroid (66%) procedures by a single surgeon at our academic institution between 2005 and 2008. Inpatient and outpatient groups were compared using Student t-test, chi-square test, or the Kruskal-Wallis test where appropriate. Multiple regression analysis was used to determine how patient and hospital factors influenced turnover times.RESULTS: Turnover times were significantly lower in the outpatient OR (mean 18 + 0.7 min) when compared with the inpatient OR (mean 36 + 1.4 min) (P <
When compared by type of procedure, all turnover times remained significantly lower in the outpatient OR. Patients in both ORs were similar in age, gender, and comorbidities. However, inpatients had a higher mean American Society of Anesthesiologists score (2.30 versus 2.13, \( P < 0.001 \)) and were more likely to have an operative indication of cancer (23.1\% versus 9.2\%, \( P < 0.001 \)). Using multiple regression, the inpatient OR remained highly significantly associated with higher turnover times when controlling for these small differences (\( P < 0.001 \)).

CONCLUSIONS: Endocrine procedures performed in the outpatient OR have significantly faster turnover times leading to cost savings and greater OR utilization for hospitals. Copyright 2013 Elsevier Inc. All rights reserved.

Source: Medline

A short-stay unit for thyroidectomy patients increases discharge efficiency.

Author(s) Vrabec S, Oltmann SC, Clark N, Chen H, Sippel RS

Citation: Journal of Surgical Research, September 2013, vol./is. 184/1(204-8), 0022-4804;1095-8673 (2013 Sep)

Publication Date: September 2013

Abstract: BACKGROUND: Patients traditionally recover overnight on a general surgery ward after a thyroidectomy; however, these units often lack the efficiency and focus for rapid discharge, which is the goal of a short-stay (SS) unit. Using an SS unit for thyroidectomy patients, who are often discharged in <24 h, may reduce the duration of hospital stay and subsequently decrease associated costs and increase hospital bed and resource availability.

METHODS: A retrospective review of 400 patients undergoing thyroidectomy at a single academic hospital. We analyzed postoperative discharge information and hospital cost data. Adult patients who stayed a single night in the hospital were included. We compared patients staying on a designated SS unit versus a general surgery (GS) ward.

RESULTS: A total of 223 patients were admitted to SS, and 177 to GS. Trends of admission location were blocked based on time period, with most patients per time period going to the same location. Discharge times were significantly quicker for patients admitted to SS (\( P < 0.001 \)). A total of 70\% of SS patients were discharged before noon, versus 40\% of GS patients (\( P < 0.001 \)). Many variances were identified to account for these differences. Direct costs were significantly lower with SS, owing to savings in pharmacy, recovery room, and nursing expenses (all \( P < 0.01 \)).

CONCLUSIONS: A designated short-stay hospital unit is an effective model for increasing the efficiency of discharge for thyroidectomy patients compared with those admitted to a general surgery ward. It also serves to increase bed availability, which decreases hospital cost and may improve patient flow. Copyright 2013 Elsevier Inc. All rights reserved.

Source: Medline


Author(s) Menegaux F, AFCE

Citation: Journal of visceral surgery, June 2013, vol./is. 150/3(165-71), 1878-7886;1878-7886 (2013 Jun)

Publication Date: June 2013

Abstract: BACKGROUND: Cervical hematoma with airway compromise is a severe complication that may be rapidly lethal or result in irreversible cerebral anoxia if the hematoma is not urgently decompressed. It is therefore indispensable to know the essential relevant elements as well as predictive criteria for this complication before envisioning ambulatory thyroidectomy.

METHODS: The Association francophone de chirurgie endocrinienne (AFCE) sought to answer several questions raised by the proposal of ambulatory thyroidectomy and to propose recommendations based on a review of the literature, an inquiry sent out to members of the AFCE, and an in-depth research of the medicolegal risks involved, based essentially on jurisprudence. The details scrutinized included preoperative selection criteria, the characteristics of the operation and the basic elements of postoperative surveillance.

CONCLUSIONS: The standard today is at least an overnight hospital stay. In fact, hospital stay can be less than 24h because the risk of cervical compressive hematoma is very unusual beyond this interval. Ambulatory (outpatient) thyroidectomy (0 nights) is possible under certain conditions for highly selected patients according to criteria described in the literature that also define relative contra-indications. In case of life-threatening or functional complications, the surgeon stands first in the line of responsibility. The surgeon must therefore ensure that the patient and family were fully informed of the contra-indications, the normal course of postoperative events, of
pertinent elements of postoperative surveillance and of the conditions under which the patient can be safely discharged. The surgeon must also realize that this type of management is time-consuming. Copyright 2013 Elsevier Masson SAS. All rights reserved.

**Source:** Medline

**Epidemiological and economic trends in inpatient and outpatient thyroidectomy in the United States, 1996-2006.**

**Author(s)** Sun GH, DeMonner S, Davis MM

**Citation:** Thyroid, June 2013, vol./is. 23/6(727-33), 1050-7256;1557-9077 (2013 Jun)

**Publication Date:** June 2013

**Abstract:** BACKGROUND: Traditionally, thyroid surgery has been an inpatient procedure due to the risk of several well-documented complications. Recent research suggests that for selected patients, outpatient thyroid surgery is safe and feasible, with the additional potential benefit of cost savings. In recognition of these observations, we hypothesized that there would be an increase in U.S. outpatient thyroidectomies with a concurrent decline in inpatient thyroidectomies over time.METHODS: Comparative cross-sectional analyses of the National Survey of Ambulatory Surgery (NSAS) and Nationwide Inpatient Sample (NIS) databases from 1996 and 2006 were performed. All cases of thyroid surgery were extracted, as well as data on age, sex, and insurance status. Diagnoses and surgical cases were identified using International Classification of Diseases, Ninth Revision (ICD-9) diagnostic and treatment codes. Hospital charges were acquired from the NIS 1996 and 2006 and NSAS 2006 releases, using imputed data where necessary. After survey weights were applied, patient characteristics, diagnoses, and procedures were compared for inpatient versus outpatient procedures.RESULTS: The total number of thyroidectomies increased 39%, from 66,864 to 92,931 cases per year during the study timeframe. Outpatient procedures increased by 61%, while inpatient procedures increased by 30%. The proportion of privately insured inpatients declined slightly from 63.8% to 60.1%, while those covered by Medicare increased from 22.8% to 25.8%. In contrast, the proportion of privately insured outpatients declined sharply from 76.8% to 39.9%, while those covered by Medicare rose from 17.2% to 45.7%. These trends coincided with a small increase in the mean inpatient age from 50.2 to 52.3 years and a larger increase in the mean outpatient age from 50.7 to 58.1 years. Inflation-adjusted per-capita charges for inpatient thyroidectomies more than doubled from $9,934 in 1996 to $22,537 in 2006, while aggregate national inpatient charges tripled from $464 million to $1.37 billion. By comparison, per-capita charges for outpatient thyroidectomy totaled $7,222 in 2006.CONCLUSIONS: From 1996 to 2006, there has been a concurrent modest increase in inpatient and pronounced increase in outpatient thyroidectomies in the United States, with a consequential demographic shift and economic impact.

**Source:** Medline

**Outpatient thyroid surgery data from the University Health System (UHC) Consortium.**

**Author(s)** Stack BC Jr, Moore E, Spencer H, Medvedev S, Bodenner DL

**Citation:** Otolaryngology - Head & Neck Surgery, May 2013, vol./is. 148/5(740-5), 0194-5998;1097-6817 (2013 May)

**Publication Date:** May 2013

**Abstract:** OBJECTIVE: Describe data from patients undergoing outpatient thyroid surgeries for benign and malignant disease at academic medical centers in the United States.STUDY DESIGN: Retrospective database search.SETTING: The University Health System Consortium (UHC), Oak Brook, Illinois, data compiled from discharge summaries.SUBJECTS AND METHODS: Discharge data were collected from the first quarter of 2005 through the fourth quarter of 2010. Searching strategy was based on diagnosis of thyroid disease and patients undergoing thyroid surgery across all UHC facilities. Demographic information was collected as well as charges. Complications were also evaluated in this analysis.RESULTS: During the study period, 38,362 outpatient thyroidectomies were performed from our sample, 32% for thyroid cancer. More total thyroidectomies (43%) and fewer hemithyroidectomies (36%) were being performed overall; 64.1% of patients stayed 23 hours. Conclusion: This is one of the largest series reporting outcomes for outpatient thyroid surgery. Since these surgeries appear to be shifting to an outpatient setting, this report reflects the experience with the majority of endocrine surgeries from the UHC database being performed presently. These results are derived from teaching hospitals and their affiliates and may not reflect the entirety of thyroid surgery in the United States.

**Source:** Medline
Short-stay hospitalisation for benign thyroid surgery: a prospective study.

**Author(s)** Fama' F, Linard C, Patti R, Berry MG, Gioffre'-Florio M, Piquard A, Saint-Marc O

**Citation:** European Archives of Oto-Rhino-Laryngology, January 2013, vol./is. 270/1(301-4), 0937-4477;1434-4726 (2013 Jan)

**Publication Date:** January 2013

**Abstract:** We report our prospective experience of short-stay hospitalisation for benign thyroid surgery. Post-operative outcome, complication rate and duration of hospitalisation were evaluated for 200 similar patients with bilateral multi-nodular goitres treated surgically by total thyroidectomy. All subjects gave written informed consent. A short-stay regimen, with discharge within 24 h of admission, was possible in 92.5 %. Fourteen (7 %) were discharged on the second post-operative day and one on the fourth post-operative day. Causes of the 15 delayed discharges beyond 24 h were 11 hypocalcaemia (5.5 %), 3 haematoma (1.5 %) and 1 dysphonia (0.5 %). All compressive haematoma were treated by urgent reoperation. No mortality occurred. None required tracheostomies. Transient complications were diagnosed in 36 cases: 25 with hypocalcaemia and 11 with recurrent laryngeal nerve injuries. Permanent complications were observed in three patients: two with hypoparathyroidism and one with nerve damage. All patients were carefully counselled about potential thyroid surgery complications and a 24-h emergency-contact number was provided. Short-stay hospitalisation represents safe and cost-saving surgical management for benign thyroid surgery.

**Source:** Medline

Available in fulltext from European Archives of Oto-Rhino-Laryngology at EBSCOhost

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Same-day thyroidectomy program: eligibility and safety evaluation.

**Author(s)** Mazeh H, Khan Q, Schneider DF, Schaefer S, Sippel RS, Chen H

**Citation:** Surgery, December 2012, vol./is. 152/6(1133-41), 0039-6060;1532-7361 (2012 Dec)

**Publication Date:** December 2012

**Abstract:** BACKGROUND: Same-day thyroidectomy has not gained widespread acceptance owing to concerns of life-threatening complications. The aim of this study is to describe a single institution same-day thyroidectomy results.METHODS: We included patients who underwent thyroid surgery between 2005 and 2011 by a single surgeon. The outcomes of patients who underwent inpatient (IP) and same-day thyroidectomy were compared. Routine postoperative parathyroid hormone testing for same-day thyroidectomy commenced in 2010, and results were also compared after that date.RESULTS: Thyroid surgery was performed in 608 patients; 298 (49%) were performed as same-day thyroidectomy. Patients undergoing same-day thyroid lobectomy had similar, low documented complication rate as IP lobectomy. Patients with same-day total thyroidectomy (SDTT) had similar rates of documented transient hypocalcemia and neck hematoma compared with IPs. After 2010, all patients without restrictive underlying comorbidities were scheduled for same-day thyroidectomy unless otherwise specifically requested by the patient. Only 4 (3%) patients scheduled for SDTT were converted to IPs, all without neck complications.CONCLUSION: Same-day thyroidectomy is safe and can be routinely performed by experienced surgeons who have low complication rates and a patient support system. Copyright 2012 Mosby, Inc. All rights reserved.

**Source:** Medline

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Questionable safety of thyroid surgery with same day discharge.

**Author(s)** Doran HE, England J, Palazzo F, British Association of Endocrine and Thyroid Surgeons

**Citation:** Annals of the Royal College of Surgeons of England, November 2012, vol./is. 94/8(543-7), 0035-8843;1478-7083 (2012 Nov)

**Publication Date:** November 2012

**Abstract:** INTRODUCTION: Over the last two decades increasing numbers of surgical procedures have been performed on an outpatient basis. In 2000 the National Health Service in England set the target of performing 75% or more of all elective surgical procedures as day cases and in 2001 the British Association of Day Surgery added thyroidectomy to the list of day case procedures. However, same day discharge following thyroidectomies has been adopted by only a very small number of UK centres. The aim of this review was to establish the evidence base surrounding same day discharge thyroid surgery.METHODS: The British Association of Endocrine and Thyroid Surgeons commissioned the authors to perform a review of the best available evidence regarding day
case thyroid surgery as a part of a consensus position to be adopted by the organisation. A MEDLINE() review of the English medical literature was performed and the relevant articles were collated and reviewed.

RESULTS: There are limited comparative data on day case thyroid surgery. It is feasible and may save individual hospitals the cost of inpatient stay. However, the risk of airway compromising and life threatening post-operative bleeding remains a major concern since it is not possible to positively identify those patients most and least at risk of bleeding after thyroidectomy. It is estimated that half of all post-thyroidectomy bleeds would occur outside of the hospital environment if patients were discharged six hours after surgery. CONCLUSIONS: Same day discharge in a UK setting cannot be endorsed. Any financial benefits may be outweighed by the exposure of patients to an increased risk of an adverse outcome. Consequently, 23-hour surgery is recommended.

Source: Medline
Available in fulltext from Annals of The Royal College of Surgeons of England at Ingenta
Available in fulltext from Annals of The Royal College of Surgeons of England at National Library of Medicine

A review of risk factors and timing for postoperative hematoma after thyroidectomy: is outpatient thyroidectomy really safe?

Author(s) Lang BH, Yih PC, Lo CY
Citation: World Journal of Surgery, October 2012, vol./is. 36/10(2497-502), 0364-2313:1432-2323 (2012 Oct)
Publication Date: October 2012
Abstract: BACKGROUND: Although postoperative hematoma after thyroidectomy is uncommon, patients traditionally have been advised to stay overnight in the hospital for monitoring. With the growing demand for outpatient thyroidectomy, we assessed its safety and feasibility by evaluating the potential risk factors and timing of postoperative hematoma after thyroidectomy.

METHODS: From 1995-2011, 3,086 consecutive patients underwent thyroidectomy at our institution; of these, 22 (0.7%) developed a postoperative hematoma that required surgical reexploration (group I). Potential risk factors were compared between group I and those without hematoma (n = 3,045) or with hematoma but not requiring reexploration (n = 19; group II). Variables that were significant in the univariate analysis were entered into multivariate analysis by binary logistic regression analysis.

RESULTS: Group I was significantly more likely to have undergone previous thyroid operation than group II (27.3 vs. 8.2%, p = 0.007). The median weight of excised thyroid gland (71.8 vs. 40 g, p = 0.018) and the median size of the dominant nodule (4.1 vs. 3 cm, p = 0.004) were significantly greater in group I than group II. Previous thyroid operation (odds ratio (OR) = 4.084; 95% confidence interval (CI), 1.105-15.098; p = 0.035) and size of dominant nodule (OR = 1.315; 95% CI, 1.024-1.687; p = 0.032) were independent factors for hematoma. Sixteen (72.7%) had hematoma within 6 h, whereas the other 6 (27.3%) had hematoma at 6-24 h.

CONCLUSIONS: Previous thyroid operation and large dominant nodule were independent risk factors for hematoma requiring surgical reexploration. Given that a quarter of hematoma occurred between 6 to 24 h after surgery, routine outpatient thyroidectomy could not be recommended.

Source: Medline
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Day-case thyroid surgery.

Author(s) Doran HE, Palazzo F
Citation: British Journal of Surgery, June 2012, vol./is. 99/6(741-3), 0007-1323;1365-2168 (2012 Jun)
Publication Date: June 2012
Source: Medline
Available in fulltext from British Journal of Surgery at EBSCOhost
Available in fulltext from British Journal of Surgery at the ULHT Library and Knowledge Services' eJournal collection

Outpatient thyroidectomy: safety and patients' satisfaction.
OBJECTIVE: To establish whether outpatient thyroid surgery is safe.

Design: Prospective, observational cohort.

Setting: Two tertiary care centres.

METHODS: Although there is currently a trend toward ambulatory surgery in many domains, thyroidectomy has traditionally remained an inpatient procedure. We present our 200-case experience of total and partial thyroidectomy in an outpatient setting. Consecutive patients were prospectively recruited between May 2009 and October 2010. Surgeries were performed by four surgeons. A postoperative parathyroid hormone (PTH) level was obtained in the recovery room and used to guide the prescription of calcium and calcitriol oral supplements according to our institutional protocol.

MAIN OUTCOME MEASURES: Postoperative complications, admission and readmission rates, patients' satisfaction, and feeling of security on a 10-point scale.

RESULTS: A total of 171 patients, for a total of 200 surgical procedures: 100 hemithyroidectomies, 34 completion hemithyroidectomies, and 66 total thyroidectomies (including 14 with central compartment dissection). Immediate admission was decided in 12% of cases due to peroperative findings (15 patients), anesthetic considerations (7 patients), bilateral vocal fold paralysis noted in the recovery room (1 patient), and surgery late in the afternoon (1 patient). Two patients were readmitted for surgical site infections and one due to hypocalcemia. Temporary symptomatic hypocalcemia or decreased PTH level occurred in 10% (20 patients). On average, patients' satisfaction and feeling of security reached 9.3 on a 10-point scale.

CONCLUSION: Outpatient thyroid surgery is a safe and desirable option.
practice within a community hospital. RESULTS: The study period included 247 thyroid surgeries, of which 94 were completed on an outpatient basis. No complications were identified in the outpatient group. CONCLUSIONS: Outpatient subtotal thyroidectomy is safe and effective. It has not been shown to increase postoperative complication rates. The practice of outpatient thyroid surgery can be of financial benefit to the Canadian health care system. Source: Medline Available in fulltext from Journal of Otolaryngology -- Head & Neck Surgery at EBSCOhost

Profile of patients with completion thyroidectomy and assessment of their suitability for outpatient surgery.

Author(s) Wu G, Pai SI, Agrawal N, Richmon J, Dackiw A, Tufano RP
Citation: Otolaryngology - Head & Neck Surgery, November 2011, vol./is. 145/5(727-31), 0194-5998;1097-6817 (2011 Nov)
Publication Date: November 2011
Abstract: OBJECTIVE: Outpatient thyroid surgery for thyroid lobectomy has been shown to be safe and feasible. The safety of outpatient completion thyroidectomy in patients who have previously undergone thyroid lobectomy has not been extensively evaluated in the medical literature to date. The authors sought to evaluate postoperative complications associated with completion thyroidectomy in their institution to determine if it would be safe and feasible to perform as an outpatient procedure. STUDY DESIGN: Case series with chart review. SETTING: Tertiary care teaching hospital. SUBJECTS AND METHODS: Two hundred four consecutive patients, who underwent completion thyroidectomy after previous thyroid lobectomy from January 2000 to June 2010, comprised the study population. Medical records were reviewed for preoperative and postoperative serum calcium levels, preoperative and postoperative fiber-optic laryngoscopic examination of vocal fold mobility, associated comorbidities, length of hospital stay, drain use, seroma or hematoma formation, final thyroid pathology, and postoperative follow-up. RESULTS: Overall, 9 patients (4.4%) developed postoperative complications, including transient symptomatic hypocalcemia in 4 patients (2.0%), transient laboratory hypocalcemia in 3 patients (1.5%), seroma formation in 1 patient (0.5%), and hematoma development in 1 patient (0.5%). There were no cases with permanent or temporary vocal fold paralysis. No significant difference was found in the overall complication rate before and after 4 hours of observation ($P = .50$). CONCLUSION: Selected patients who undergo completion thyroidectomy after previous thyroid lobectomy can be safely discharged after 4 hours of postoperative observation with appropriate instructions.

Source: Medline

Advances in surgical therapy for thyroid cancer.

Author(s) Mazeh H, Chen H
Citation: Nature Reviews Endocrinology, October 2011, vol./is. 7/10(581-8), 1759-5029;1759-5037 (2011 Oct)
Publication Date: October 2011
Abstract: Thyroid cancer is the most common malignancy of the endocrine system and its incidence has dramatically increased over the past three decades. Well-differentiated thyroid cancers (DTCs) are the main focus of this article, as they represent >90% of thyroid malignancies. This Review provides an overview of the controversies surrounding the optimal choice of surgery and extent of resection for patients with low-risk DTC or with papillary thyroid microcarcinoma, and the role of prophylactic central lymph node dissection. This Review also outlines the current surgical management of DTC and presents updated results for these techniques, along with important advances and current dilemmas in surgical approaches to treatment of these cancers. For example, endoscopic and robotic thyroidectomy are the two most recent innovations to present technical and other challenges to the endocrine surgeon; in addition, the risks as well as the advantages of same-day thyroid surgery, which has gained some acceptance, are detailed. Arguments for and against each approach are presented, along with supporting evidence. The authors’ personal opinions are also provided for each topic.

Source: Medline

Modifications of Miccoli minimally invasive thyroidectomy for the low-volume surgeon.

Author(s) Terris DJ, Seybt MW
Citation: American Journal of Otolaryngology, September 2011, vol./is. 32/5(392-7), 0196-0709;1532-818X (2011 Sep-Oct)
**Abstract:** OBJECTIVE: The objective of the study was to describe our experience with modifications of the Miccoli minimally invasive thyroidectomy. DESIGN: Planned analysis of a prospectively maintained database was undertaken after Institutional Review Board approval. METHODS: Demographic and surgical data were obtained and analyzed with attention to age, sex, pathology, incision lengths, and complications. RESULTS: From a single-surgeon series of 785 consecutive thyroidectomies, 178 patients were identified who underwent an endoscopic minimally invasive thyroidectomy. A series of modifications of the classic Miccoli technique evolved over a period of 4 years and include presurgical factors (patient marking in holding area, intubation with laryngeal EMG tube using videolaryngoscope, rotation of operating table away from anesthesia), intraoperative principles (use of operative loupes, slave monitor, laryngeal nerve monitoring, and novel instrumentation; identification of the medial cleft and ligation of superior pedicle bundle using ultrasonic technology; avoidance of clips), and postoperative techniques (deep extubation, laryngeal endoscopy, outpatient management, and oral calcium supplementation). CONCLUSIONS: A minimally invasive endoscopic thyroidectomy is possible even in a practice with moderate surgical volumes by using several techniques that facilitate the performance of this procedure. A high success rate and low complication rate can be achieved, resulting in improved patient satisfaction. Copyright 2011 Elsevier Inc. All rights reserved.

**Source:** Medline

Available in fulltext at American Journal of Otolaryngology; Collection notes: On first login to a ProQuest journal you will need to select 'Athens (OpenAthens Federation)' from Select Region, and then 'NHS England' from Choose your Library.

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**Outpatient thyroidectomy: is it a safe and reasonable option?.**

**Author(s):** Hessman C, Fields J, Schuman E

**Citation:** American Journal of Surgery, May 2011, vol./is. 201/5(565-8), 0002-9610;1879-1883 (2011 May)

**Publication Date:** May 2011

**Abstract:** BACKGROUND: Outpatient surgery is cost effective and convenient. The aim of this study was to determine the safety and feasibility of outpatient thyroidectomy. METHODS: Retrospective review was performed of all thyroidectomy patients from a tertiary care center between January 2004 and March 2010. RESULTS: One hundred forty-eight patients met the inclusion criteria. Subtotal and hemithyroidectomies (n = 79) were compared against completion and total thyroidectomies (n = 72). Nine total thyroidectomy patients (12.5%) required unplanned overnight admission, compared with 4 hemithyroidectomy patients (5.1%) (P = .15). The majority were admitted for pain and nausea control. Overnight admissions were highest among men (32% vs 5%, P = .002) and patients with Graves’ disease (36% vs 6%, P = .003). Postoperative complications occurred in 6 total thyroidectomy patients (8.3%) and 3 hemithyroidectomy patients (3.8%) (P = .31). Only 4 patients (2.6%) required readmission for complications. There were no deaths. CONCLUSIONS: Outpatient thyroidectomy performed by an experienced surgeon is safe and feasible. Men and patients with Graves’ disease have a higher probability of requiring postoperative admission. Copyright 2011 Elsevier Inc. All rights reserved.

**Source:** Medline

Available in fulltext at American Journal of Surgery; The: Collection notes: On first login to a ProQuest journal you will need to select 'Athens (OpenAthens Federation)' from Select Region, and then 'NHS England' from Choose your Library.

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**Same-day thyroidectomy: a review of practice patterns and outcomes for 1,168 procedures in New York State.**

**Author(s):** Tuggle CT, Roman S, Udelsman R, Sosa JA

**Citation:** Annals of Surgical Oncology, April 2011, vol./is. 18/4(1035-40), 1068-9265;1534-4681 (2011 Apr)

**Publication Date:** April 2011

**Abstract:** BACKGROUND: There has been a shift of procedures from the inpatient to the outpatient setting. Same-day thyroidectomy (SDT) has been reported in high-volume single-institution series, but few studies have evaluated its widespread use. METHODS: Patients undergoing thyroidectomy for benign and malignant thyroid disease were abstracted from the 2004 New York State inpatient (SID) and ambulatory surgery (SASD) databases. SDTs were discharged on the same day as their surgery. Patient and provider (surgeon and hospital volume) characteristics were associated with outcomes, including
probability of SDT versus hospital admission and 30-day rehospitalization, by bivariate and multivariate analyses.RESULTS: A total of 6,762 thyroidectomies were identified; 17% (1,168) were SDTs. Patients undergoing SDT compared to thyroidectomy with admission were more often white (80 vs. 65%, P < 0.001), with private insurance (80 vs. 70%, P < 0.001) and fewer comorbidities (96 vs. 89% with Charlson scores of none/low, P < 0.001). SDT was performed more often by high-volume surgeons (48 vs. 31%, P < 0.001) and at high-volume hospitals (61 vs. 35%, P < 0.001). Rehospitalization rates of 1.4 and 2.4% were observed for SDT and inpatient thyroidectomy, respectively (P = NS). In multivariate analysis, thyroidectomy by a high-volume surgeon was associated with a higher chance of same-day discharge (odds ratio = 2.3, P < 0.001).CONCLUSION: Nearly 20% of thyroidectomy patients undergo SDT in New York State. They have different demographic and clinical characteristics than patients undergoing thyroidectomy who are admitted. There seem to be a few high-volume surgeons and centers with extensive SDT experience. More research is needed to explore optimized patient triage and patterns of referral to centers of excellence.

Source: Medline
Available in fulltext at Annals of Surgical Oncology; Collection notes: On first login to a ProQuest journal you will need to select 'Athens (OpenAthens Federation)' from Select Region, and then 'NHS England' from Choose your Library. Available in fulltext from Annals of Surgical Oncology: An Oncology Journal for Surgeons at EBSCOhost
Available in fulltext from Annals of Surgical Oncology at Free Access Content

Indications for ambulatory gastrointestinal and endocrine surgery in adults.
Citation: Journal of visceral surgery, February 2011, vol./is. 148/1(69-74), 1878-7886;1878-7886 (2011 Feb)
Publication Date: February 2011
Source: Medline

PACU PTH facilitates safe outpatient total thyroidectomy.
Author(s) Houlton JJ, Pechter W, Steward DL
Citation: Otolaryngology - Head & Neck Surgery, January 2011, vol./is. 144/1(43-7), 0194-5998:1097-6817 (2011 Jan)
Publication Date: January 2011
Abstract: OBJECTIVE: To determine if a serum parathyroid hormone (PTH)-based discharge algorithm can be used to safely facilitate outpatient total thyroidectomy.STUDY DESIGN: Case series with chart review of consecutive total and completion thyroidectomies performed by the senior author from March 2008 to November 2009.SETTING: An academic tertiary care center.SUBJECTS AND METHODS: At the authors' institution, patients undergoing total or completion thyroidectomy are subject to a same-day discharge algorithm that incorporates postanesthesia care unit rapid PTH as the major discharge criterion. Patients with PTH >30 pg/mL are eligible for same-day discharge without supplementation, patients with PTH between 20 and 30 pg/mL are eligible for discharge but receive calcium supplementation, and patients with PTH <20 pg/mL are observed overnight (23 hours) with calcium and vitamin D supplementation. RESULTS: One hundred eighty patients (mean age, 48.9 years; 83.3% female) underwent total (77.2%) or completion (22.7%) thyroidectomy with or without node dissection. Forty-two percent were performed with minimally invasive video-assisted (MIVA) technique. Seventy-six percent (137/180) of patients had a PTH >20 pg/mL, meeting the PTH discharge criterion. Sixty-nine percent (95/137) of eligible patients were discharged on the same day (53.1% of total). Ten percent of discharge-eligible patients were admitted due to drain placement. Of the 95 patients undergoing outpatient surgery, none were admitted, seen, or called for symptoms of hypocalcemia in the postoperative period. All 180 patients were eucalcemic at postoperative day (POD) 7 and POD 30 office visits. No patients were hypoparathyroid at POD 30. No significant difference in postoperative hypoparathyroidism existed between completion versus total thyroidectomy (11.1% vs 22.2%, P = .28) or MIVA versus standard technique (P = .37). CONCLUSION: A PTH-based discharge algorithm can safely facilitate outpatient total or completion thyroidectomy, with minimal risk of clinically significant outpatient hypocalcemia.
Nomogram to aid selection of patients for short-stay thyroidectomy based on risk of postoperative hypocalcemia.

Citation: Archives of Otolaryngology - Head & Neck Surgery, 01 November 2011, vol./is. 137/11(1154-1160), 08864470
Publication Date: 01 November 2011
Source: CINAHL
Available in fulltext from Archives of Otolaryngology - Head and Neck Surgery at Free Access Content
Available in fulltext from Archives of Otolaryngology - Head and Neck Surgery at Silverchair Information Systems

Profile of patients with completion thyroidectomy and assessment of their suitability for outpatient surgery.

Author(s): Wu G, Pai SI, Agrawal N, Richmon J, Dackiw A, Tufano RP
Citation: Otolaryngology-Head & Neck Surgery, 01 November 2011, vol./is. 145/5(727-731), 01945998
Publication Date: 01 November 2011
Source: CINAHL

Outpatient thyroidectomy: experience in over 200 patients.

Author(s): Seybt MW, Terris DJ
Citation: Laryngoscope, May 2010, vol./is. 120/5(959-63), 0023-852X;1531-4995 (2010 May)
Publication Date: May 2010
Abstract: OBJECTIVES/HYPOTHESIS: Thyroidectomy has historically been performed on an inpatient basis out of fear of hemorrhage and transient but life-threatening hypocalcemia. An earlier favorable experience with outpatient surgery for a limited number of patients prompted our objective of an expanded evaluation of this practice.
STUDY DESIGN: Retrospective analysis of a prospectively populated database.
METHODS: A consecutive single-surgeon series of patients undergoing thyroidectomy in an academic otolaryngology department between February 2003 and November 2007, including 91 patients assessed in a previous report. Clinical variables including age, gender, type of surgery, indications, and complications were obtained and analyzed. Principal outcome measures were length of hospital stay, incidence of complications, and rate of readmission.
RESULTS: Four hundred eighteen patients underwent thyroid surgery during the study period. Two hundred eight were accomplished on an outpatient basis, 128 patients were observed under a 23-hour status, and 82 were admitted for a mean of 2.9 days (the latter two cohorts were grouped together and designated as inpatients). There were four complications in the outpatient group (1.9%) and 28 (13.3%) in the inpatient group (P < .001). Four individuals in the outpatient group (1.9%) required readmission compared with 5.7% (12/210) of those in the inpatient group, most commonly for transient hypocalcemia.
CONCLUSIONS: The initial favorable experience with outpatient thyroid surgery has been validated in this expanded patient population of more than 200 patients. In rare instances, readmission may be required secondary to transient hypocalcemia. Modern surgical techniques, avoidance of drains, and prophylactic calcium supplementation have combined to make outpatient thyroidectomy safe in carefully selected patients.
Source: Medline
Available in fulltext from Laryngoscope at EBSCOhost

Outpatient thyroidectomy is safe and reasonable: experience with more than 1,000 planned outpatient procedures.

Author(s): Snyder SK, Hamid KS, Roberson CR, Rai SS, Bossen AC, Luh JH, Scherer EP, Song J
Citation: Journal of the American College of Surgeons, May 2010, vol./is. 210/5(575-82, 582-4), 1072-7515;1879-1190 (2010 May)
Publication Date: May 2010
Abstract: BACKGROUND: Thyroidectomy has traditionally been performed as an inpatient hospital procedure, but low risk and high patient tolerance make it acceptable as an outpatient procedure.
STUDY DESIGN: All thyroidectomies performed by a single surgeon...
between March 2003 and June 2009 were retrospectively and prospectively reviewed as planned outpatient or planned inpatient operations, noting the patient's American Society of Anesthesiologists (ASA) classification, success of completion as an outpatient procedure, time to same-day discharge, postoperative emergency room visit, hospital admission, and complications.

RESULTS: Overall, 1,136 of 1,242 thyroidectomies were planned as outpatient procedures and 1,063 (93.6%) were successfully completed as such. Including 1 outpatient procedure initially planned as an inpatient procedure, 1,064 outpatient procedures were performed, of which 613 were total and 451 less-than-total thyroidectomies. These outpatient procedures had a mean time to day-surgery discharge of 2 hours and 42 minutes. Of discharged outpatients, a postoperative emergency room visit within 30 days occurred in 83 cases (7.8%), with subsequent hospital admission in 25 of these patients (2.3%). Excluding 153 cases of isolated and self-limited asymptomatic hypocalcemia (14.4%), substantial complications occurred in 122 discharged outpatients (11.5%), including 56 symptomatic hypocalcemias (5.2%), 39 transient recurrent laryngeal nerve injuries (3.7%), 4 permanent recurrent laryngeal nerve injuries (0.4%), and 2 hematomas (0.19%). None of the patients with postoperative hematoma required bedside decompression and only 1 occurred within 24 hours of the outpatient procedure.

Discharged outpatient thyroidectomy patients were younger (53 years versus 60 years; p < 0.0001) and healthier (2.3 ASA versus 3.0 ASA; p < 0.0001) than planned inpatient thyroidectomies.

CONCLUSIONS: Outpatient thyroidectomy in experienced hands is safe and reasonable with favorable patient acceptance and the potential for substantial health care cost savings. Copyright 2010 American College of Surgeons. Published by Elsevier Inc. All rights reserved.

Source: Medline

Outpatient hemi-thyroidectomy: is it safe?
Author(s) Almeida, C., Campos, M., Leal, T., Alves, L., Lemos, P.
Citation: Ambulatory Surgery, 01 April 2010, vol./is. 16/1(17-19), 09666532
Publication Date: 01 April 2010
Abstract: Aim: To compare the safety of hemi-thyroidectomy following the procedure between ambulatory and inpatient surgical regimens. Methods: 100 patients consecutively submitted to hemi-thyroidectomy (between 2005-08) were selected: Group 1-50 inpatients; Group 2-50 outpatients with discharge on the same day. A retrospective analysis was performed. Clinical features were not factors in the selection of the regimen. Information about gender, age, ASA score, and clinical features, drains, hospital length of stay and post-operative complications was recorded. An additional questionnaire by telephone was performed after the procedure. Results: The median of age was significantly older in Group 1. No significant differences between groups were found in gender, ASA score or educational level. Drains were kept significantly longer in the inpatient group. The number of major complications was low, consistent with the accepted norms and not statistically different between groups. No life-threatening complications were reported. Conclusion: An outpatient procedure has well-established advantages. The results suggest that safety is comparable in both regimens. With an increase in surgeons’ experience, and an adequate selection and education of the patients, the one day surgery regimen can offer a higher volume of surgery associated with cost reduction.
Source: CINAHL

Analysis of safety of short-stay thyroid surgery.
Author(s) Dedivitis RA, Pfuetzenreiter EG Jr, Castro MA, Denardin OV
Citation: Acta Otorhinolaryngologica Italica, December 2009, vol./is. 29/6(326-30), 0392-100X;1827-675X (2009 Dec)
Publication Date: December 2009
Abstract: The duration of hospital stay, following surgical procedures, has undergone a significant reduction in recent years. However, there are some risks associated with short-stay thyroid surgery. An analysis has been made of data from patients who underwent short-stay thyroid surgery, analyzing the complications associated with this procedure. Overall 270 consecutive patients undergoing thyroidectomy in 2007 and 2008 were prospectively analyzed. Post-operative care included routine ward overnight observation. The discharge criteria were: stable vital signs; apyretic; no wound or airway problems; tolerating diet; and established autonomy at discharge. Data were collected regarding patients’ discharge criteria status, length of hospital stay and readmission, as well as morbidity (post-operative haemorrhage, recurrent laryngeal nerve injury and hypocalcaemia) and mortality. This series comprised 175 total thyroidectomies, 93 hemo-
thyroidectomies and 2 isthmusectomies. No cases of death or post-operative haemorrhage occurred in any of these patients. Permanent unilateral recurrent laryngeal nerve injury was observed in 4 patients (1.48%). Transient post-operative hypocalcaemia occurred in 23 patients, whereas permanent post-operative hypocalcaemia was observed in 8 patients (2.96%); 4 patients were re-admitted and required early calcium supplementation. Five patients failed to tolerate the diet during the immediate post-operative period. The average duration of hospital stay was 1.02 days. Considering the 4 patients who required re-admission due to hypocalcaemia, the total length of hospital stay was 1.05 days. In conclusion, the one-day surgery model is safe and effective in patients undergoing surgery for thyroid disorders.

**Source:** Medline

Available in fulltext from Acta Otorhinolaryngologica Italica at National Library of Medicine

Available in fulltext from Acta Otorhinolaryngologica Italica at Free Access Content

Available in fulltext from Acta Otorhinolaryngologica Italica at Directory of Open Access Journals

How to perform a thyroidectomy in an outpatient setting.

**Author(s)** Champault A, Vons C, Zilberman S, Labaille T, Brosseau S, Franco D

**Citation:** Langenbecks Archives of Surgery, September 2009, vol./is. 394/5(897-902), 1435-2443;1435-2451 (2009 Sep)

**Publication Date:** September 2009

**Abstract:** PURPOSE: In France, the current practice for postoperative care of thyroidectomy is still inpatient care. No series of outpatient thyroidectomy has been reported. The aim of this work was to assess the acceptability, feasibility, and safety of outpatient unilateral thyroid lobectomy in a university hospital.

**MATERIALS AND METHODS:** The procedure was proposed to patients presenting with nodule(s) in one lobe of the thyroid and fulfilling predetermined inclusion criteria. The surgical protocol included no drainage and, progressively, no dressing. Standard anesthetic, analgesic, and antiemetic protocols were used. Unplanned admission, complication, and re-operation rates were evaluated.

**RESULTS:** Among 153 unilateral thyroid lobectomies performed, 95 (62%) were planned for outpatient surgery. The proportion of outpatient unilateral thyroid lobectomies increased during an 8-year period from 36% to 90%. One patient was reoperated because local hemorrhage was diagnosed in the recovery room. He was discharged the next day. Eighteen patients (13.7%) were admitted because of nausea (n = 6), dizziness, and physical discomfort mostly due to anxiety (n = 5). Seventy-seven patients were discharged as planned 6 to 8 h after the operation. No patient was readmitted.

**CONCLUSIONS:** Outpatient unilateral thyroid lobectomy is feasible and safe in the setting of appropriate facilities and management protocol. Strict control of postoperative nausea is essential, and a preoperative education for ambulatory surgery is useful to minimize patient anxiety and increase acceptability.

**Source:** Medline

Available in fulltext from Langenbeck's Archives of Surgery at EBSCOhost

Outpatient thyroid surgery: should patients be discharged on the day of their procedures?.

**Author(s)** Trottier DC, Barron P, Moonje V, Tadros S

**Citation:** Canadian Journal of Surgery, June 2009, vol./is. 52/3(182-6), 0008-428X;1488-2310 (2009 Jun)

**Publication Date:** June 2009

**Abstract:** BACKGROUND: Outpatient surgery benefits patients and surgeons alike, as it is convenient, safe and cost-effective. We sought to assess the safety and feasibility of outpatient thyroid surgery (OTS) at an ambulatory site affiliated with a teaching hospital.

**METHODS:** We performed a retrospective chart review of patients who underwent hemithyroidectomy, subtotal thyroidectomy, total thyroidectomy or completion thyroidectomy between 2002 and 2004 at the Riverside campus of The Ottawa Hospital. We analyzed patient outcomes based on hospital admission and readmission rates as well as complication rates.

**RESULTS:** Two hundred and thirty-two patients met our inclusion criteria. Most patients were women (84%) with a mean age of 47 years. Of these patients, 43 had total thyroidectomies, 75 had subtotal thyroidectomies, 42 had left hemithyroidectomies, 57 had right hemithyroidectomies and 18 had completion thyroidectomies; 26% of these procedures were performed to treat cancer. Other pathologies included multinodular goitre (37%), adenoma (21%), nodular hyperplasia (12%) and Hashimoto thyroiditis (4%). The mean duration of surgery was 87 (range 50-150) minutes. No patients died or underwent reoperation. Complications included...
hypocalcaemia in 6 patients, hematoma in 1 patient, vocal cord injury in 1 patient and wound infection in 2 patients. All patients but 1 were discharged within 10 hours of surgery; the hospital admission rate was 0.4%. Four patients were readmitted within 1 week of surgery (2 for hypocalcemia, 1 for wound infection and 1 for pain control).CONCLUSION: Outpatient thyroid surgery is safe and is associated with a low complication rate.

**Source:** Medline

Available in fulltext from Canadian Journal of Surgery at EBSCOhost

Available in fulltext from Canadian Journal of Surgery at National Library of Medicine

**Outpatient thyroid surgery and the advances making it possible.**

**Author(s)** Hopkins B, Steward D

**Citation:** Current Opinion in Otolaryngology & Head & Neck Surgery, April 2009, vol./is. 17/2(95-9), 1068-9508;1531-6998 (2009 Apr)

**Publication Date:** April 2009

**Abstract:** PURPOSE OF REVIEW: To review the literature regarding the safety and feasibility of outpatient thyroid surgery.RECENT FINDINGS: Outpatient thyroidectomy is increasingly reported especially for hemithyroidectomy. Meta-analysis of 11 randomized trials comparing routine drain with no drains found no significant difference in respiratory distress or wound reexploration but found an increased length of stay with drain usage. In addition to risk from delayed hematoma formation, risk of hypocalcemia developing from hypoparathyroidism has traditionally challenged outpatient total or completion thyroidectomy. Routine calcium and vitamin D supplementation has been shown to reduce the risk of hypocalcemia. A meta-analysis of rapid postoperative parathyroid hormone (PTH) measurement confirmed a significantly increased risk of hypocalcemia for PTH less than 15 pg/ml.SUMMARY: Outpatient thyroidectomy is increasingly performed and reported. The senior author currently offers outpatient thyroidectomy for patients not requiring drain placement (smaller goiters without significant blood loss) and with postanesthesia care unit PTH levels of at least 30 pg/ml or with postanesthesia care unit PTH levels of at least 20 pg/ml with oral calcium supplementation.

**Source:** Medline

Available in print at Lincoln County Hospital Professional Library

**Thyroidectomy for differentiated carcinoma in older patients on a short stay basis.**

**Author(s)** Del Rio P, Sommaruga L, Bezer L, Arcuri MF, Cataldo S, Robuschi G, Sianesi M

**Citation:** Acta Bio-Medica de l Ateneo Parmense, April 2009, vol./is. 80/1(65-8), 0392-4203;0392-4203 (2009 Apr)

**Publication Date:** April 2009

**Abstract:** BACKGROUND: Total thyroidectomy is the treatment of choice for thyroid cancer and for selected benign thyroid conditions. The aging of the general population and the improvements in surgical technique induced an extension of the surgical indications to major thyroid surgery to older patients also on a short stay basis.METHODS: From January 2004 to December 2006, 152 patients affected by thyroid carcinoma underwent total thyroidectomy on a short stay basis. We divided our series in 2 groups of patients according to the age (> or < of 65 yrs) and considered the outcome analysing several factors including: ASA score, mean operative time, mean hospital stay, tumour size, and post-operative complications.RESULTS: The groups consisted of: 115 pts with a mean age of 46.81 +/- 11.63 years and 37 pts with a mean age of 74.53 +/- 3.71 years for the younger and older group respectively. The differences in ASA score and hospital stay were statistically significant between the groups (P < 0.007 and P < 0.004); neither postoperative haemorrhage nor permanent hypocalcemia was observed. One permanent paralysis of the recurrent laryngeal nerve was noted at 12 months follow up; transient hypocalcemia, which resolved in all cases within 30 days from surgery, was reported in 23 and in 7 patients in the younger and older group respectively.CONCLUSIONS: Although a longer length of stay was noted in the older group and possibly related to a higher ASA score and a worse preoperative airways condition, total thyroidectomy for differentiated thyroid carcinoma may be safely carried out in older patients on a short stay basis if performed by an expert staff and in the setting of a multidisciplinary and exhaustive preoperative assessment.

**Source:** Medline

**Novel surgical maneuvers in modern thyroid surgery.**

**Author(s)** Terris DJ

**Citation:** Operative Techniques in Otolaryngology - Head & Neck Surgery, 01 March 2009, vol./is. 20/1(23-28), 10431810
Abstract: We sought to describe a series of novel surgical maneuvers, some of which are facilitated by new technology, that have transformed the way in which a modern thyroidectomy is currently performed. A systematic identification of new surgical techniques that have been introduced during the past 3 to 5 years were identified. Several new surgical maneuvers were observed, and these were stratified into discrete components of a thyroidectomy procedure, including presurgical, intraoperative, and postsurgical. The advent of several new technologies, combined with an increased understanding of the relevant surgical anatomy, has facilitated a series of novel surgical maneuvers that represent important elements in a modern thyroidectomy. Some of these techniques are particularly helpful in minimally invasive thyroid surgery. Copyright © 2009 Elsevier Inc. All rights reserved.
Source: CINAHL

Feasibility study of day case thyroidectomy.

Author(s) Teoh AY, Tang YC, Leong HT
Citation: ANZ Journal of Surgery, October 2008, vol./is. 78/10(864-6), 1445-1433;1445-2197 (2008 Oct)
Publication Date: October 2008
Abstract: INTRODUCTION: The aim of this retrospective study was to assess the feasibility and outcome of day case thyroidectomy in an ambulatory surgery centre in Hong Kong.METHODS: Patients with day case thyroidectomy carried out between July 2005 and December 2006 were retrospectively reviewed. Day surgery was offered to patients satisfying the selection criteria for day case and having from benign unilobular thyroid disease.RESULTS: Fifty patients had hemithyroidectomy carried out during the study period. There were 6 men and 44 women and the mean (standard deviation SD) age was 45.6 years (7.4 years). All patients were American Society for Anesthesiologists grade I (76%) or II (34%). The mean (SD) operative time was 79.5 min (17 min). Twelve patients had episodes of postoperative nausea and vomiting. The mean (SD) analgesic requirement was 0.7 tablets (0.5 tablets) of combination acetaminophen and phenyltoloxamine citrate before discharge. The mean (SD) time to discharge was 7.5 h (0.7 h). The overall discharge rate was 98% and the complication rate was 8%. One patient was observed overnight because of postoperative haematoma. One patient had recurrent laryngeal nerve injury. There were no unplanned readmissions postoperatively. Three patients had unsuspected thyroid malignancy on histopathology.CONCLUSION: This study showed the feasibility and safety of day case thyroidectomy. The setting was not associated with any increase in morbidity or mortality and has the potential in reducing hospital costs.
Source: Medline
Available in fulltext from ANZ Journal of Surgery at EBSCOhost

Does the risk of compressive hematoma after thyroidectomy authorize 1-day surgery?.

Citation: Langenbecks Archives of Surgery, September 2008, vol./is. 393/5(733-7), 1435-2443;1435-2451 (2008 Sep)
Publication Date: September 2008
Abstract: BACKGROUND: Compressive hematoma after thyroidectomy is a rare complication (1%) but can potentially be severe. The aim of this study was to search for risk factors, in particular the use of anticoagulants or antiplatelet medication, and to see if the delay of hematoma formation would require 1-day surgery performed in a careful manner.MATERIALS AND METHODS: Retrospective review of 6,830 patients undergoing thyroidectomy in a single institution (1991 to 2006) identified 70 patients with hematomas requiring reoperation. Case controls (210 patients) were matched for age, gender, year of operation, type of thyroid disease, and type of operation. The notion of anticoagulant or antiplatelet medication was particularly studied. The delay of hematoma formation and the cause of bleeding were studied in univariate analysis by a chi-squared test and a Fischer's test.RESULTS: In univariate analysis, the formation of hematoma is not related to age, gender, type of thyroid disease, or type of bleeding. The pre or intraoperative administration of anticoagulant or antiplatelet medication did not influence hematoma formation. Thirty-seven hematomas (53%) presented within 6 h postoperatively, 26 (37%) between 7 and 24 h and seven (10%) beyond 24 h.CONCLUSION: Patients undergoing anticoagulant or antiplatelet treatment are not a high-risk population for hematoma formation. Forty-seven percent of the patients presented postoperative hematomas beyond
6 h postoperatively, leading to the conclusion that 1-day surgery is not safe.

**Source:** Medline
Available in fulltext from *Langenbeck's Archives of Surgery* at EBSCOhost

Pain after minimally invasive videoassisted and after minimally invasive open thyroidectomy—results of a prospective outcome study.

**Author(s)** Del Rio P, Berti M, Sommaruga L, Arcuti MF, Cataldo S, Sianesi M

**Citation:** Langenbecks Archives of Surgery, May 2008, vol./is. 393/3(271-3), 1435-2443;1435-2451 (2008 May)

**Publication Date:** May 2008

**Abstract:** BACKGROUND: Substantial modifications in surgical treatment of thyroid disease have changed the postoperative management of thyroidectomized patients. The reduction of postoperative pain permit a short-stay surgery.MATERIALS AND METHODS: We have analyzed the patients treated in our Unit from July 2006 to December 2006, with minimally invasive cervicotomy and mini-invasive video-assisted thyroidectomy. We have registered the postoperative pain applying an evaluation protocol numeric scale. The results were analyzed by t test.RESULTS: One hundred thirteen patients were divided in two groups: group A, minimally invasive cervicotomy (15 male and 46 female patients); group B, mini-invasive video-assisted thyroidectomy (9 male and 43 female patients). Upon returning to the ward, the pain scale group A vs B was 2.77 +/- 1.16 vs 2.5 +/- 0.762 (p = 0.22). At 24 h after surgery, the pain scale in group A was 1.82 +/- 1.258 vs 1.031 +/- 0.8608 (p < 0.005).CONCLUSIONS: Both methods are safe, but mini-invasive video-assisted thyroidectomy gives not only a better cosmetic result but a reduction of postoperative pain especially at 24 h.

**Source:** Medline
Available in fulltext from *Langenbeck's Archives of Surgery* at EBSCOhost

Ambulatory arterial blood pressure monitoring in patients before and after thyroidectomy.

**Author(s)** Ivanovic B, Paunovic I, Nikcivic D, Cvijanovic D, Kalezic N, Simic D

**Citation:** Vojnosanitetski Pregled, February 2008, vol./is. 65/2(135-9), 0042-8450;0042-8450 (2008 Feb)

**Publication Date:** February 2008

**Abstract:** BACKGROUND/AIM: [corrected] Increased values of thyroid hormones in the clinical syndrome of hyperthyreosis affect blood pressure values and its circadian variation. The aim of this study was to define the influence of hyperthyreosis on the values and circadian variations of arterial blood pressure, as well as to investigate the effect of thyroid surgery on blood pressure values.METHODS: We compared the 24-hour averages of systolic and diastolic blood pressure, their variations and their reduction during the night between 20 female patients with hyperthyroidism and hypertension de novo and 20 healthy females. We compared the values of 24-hour ambulatory monitoring performed before the surgery with the values gathered two weeks after the surgery.RESULTS: The 24-hour average systolic and diastolic blood pressure values were higher in the patients with hyperthyroidism than in the control group (p < 0.001). In the group of patients, the variations in blood pressure were significantly higher than they were in the group of healthy people (p < 0.001). The amplitude of the nocturnal reduction of blood pressure was also significantly lower in the patients with hyperthyroid status and hypertension, in comparison to the healthy persons (p < 0.001). Two weeks after the surgery, a significant reduction of blood pressure values (both for systolic and diastolic) appeared.CONCLUSION: The patients with hyperthyroidism caused hypertension had higher systolic and dia stolic blood pressure, higher variations in blood pressure and lower nocturnal reduction of blood pressure than healthy subjects. Thyroid surgery, as a control of thyroid function, optimised blood pressure very rapidly.

**Source:** Medline
Available in fulltext from *Vojnosanitetski Pregled* at Free Access Content
Available in fulltext from *Vojnosanitetski Pregled: Military Medical & Pharmaceutical Journal of Serbia & Montenegro* at EBSCOhost
Available in fulltext from *Vojnosanitetski Pregled* at Directory of Open Access Journals

Safety of same day discharge in patients undergoing sutureless thyroidectomy: a comparison of local and general anesthesia.

**Author(s)** Inabnet WB, Shifrin A, Ahmed L, Sinha P

**Citation:** Thyroid, January 2008, vol./is. 18/1(57-61), 1050-7256;1050-7256 (2008 Jan)

**Publication Date:** January 2008
Abstract: BACKGROUND: The thyroid gland is one of the most vascular organs in the body and surgical resection mandates meticulous surgical technique and hemostasis. The aim of this study was to assess the safety and efficacy of the electrothermal bipolar vessel sealing system in permitting ambulatory thyroid surgery under local anesthesia. METHODS: From January 1, 2004, to December 31, 2005, 224 consecutive patients underwent thyroid surgery using the LigaSure for hemostasis. Whenever possible, local/regional anesthesia with conscious sedation was utilized during the procedure. A descriptive analysis was performed to evaluate patient characteristics and outcome measures. RESULTS: Eighty-two percent (n = 184) of all unselected patients presenting for thyroid surgery had their procedure performed under local/regional anesthesia with conscious sedation whereas 18% (n = 40) received general anesthesia. When comparing these two groups, the local anesthesia patients were more likely to be female (85% vs. 68%, p < or = 0.05) and younger (mean age = 50 vs. 61 years, p < or= 0.05). Forty percent of the local anesthesia patients underwent a total thyroidectomy compared to 58% in the general anesthesia group (p < or = 0.05). The mean duration of surgery was shorter in the local anesthesia patients (71 minutes vs. 101 minutes, p < or = 0.05) and the mean gland weight was also less (26.9 g vs. 63.9 g, p < or = 0.05). There was one hematoma in the local anesthesia group, but overall the morbidity was not different. Eighty-eight percent of the local anesthesia patients were discharged same day of surgery compared to 45% of the general anesthesia patients. CONCLUSIONS: The electrothermal bipolar vessel sealing system permits safe, same day discharge in patients undergoing thyroid surgery with a low complication rate irrespective of the type of anesthesia.

Source: Medline

New technologies in thyroid surgery.

Author(s) Becker AM, Gourin CG

Citation: Surgical Oncology Clinics of North America, January 2008, vol./is. 17/1(233-48, x), 1055-3207;1055-3207 (2008 Jan)

Publication Date: January 2008

Abstract: Recent technological innovations are facilitating new approaches to surgery of the thyroid gland, including minimally invasive approaches that have the added advantage of allowing the surgeon to avoid drains, thus enabling outpatient surgery. Laryngeal nerve monitoring may be a useful adjunct in identification of the recurrent laryngeal nerve, particularly for the low-volume endocrine surgeon. Endoscopic surgical techniques allow improved visualization and permit thyroidectomy to be performed through small incisions, often less than 3 cm, which may improve cosmetic outcomes. Finally, surgical robotics, with the promise of further enhanced visualization and surgical dexterity better than that possible with traditional endoscopic approaches, may have future applications to thyroid surgery.

Source: Medline

Shortening hospital stay for thyroid surgery.

Author(s) Dionigi G, Bacuzzi A, Rovera F, Boni L, Piantanida E, Tanda ML, Castano P, Annoni M, Bartalena L, Dionigi R

Citation: Expert Review of Medical Devices, January 2008, vol./is. 5/1(85-96), 1743-4440;1743-4440 (2008 Jan)

Publication Date: January 2008

Abstract: The number of outpatient surgical procedures performed in hospitals, increases daily. In some countries, such as Italy, outpatient operations outnumber inpatient operations. The incidence of thyroid disorders and, in particular, the cancer forms, has been increasing sharply for many years in several countries. Even if thyroid surgery is performed with low morbidity, no mortality and short operation time, some potentially lethal complications are strong arguments against shortening of hospital stay. The purpose of this review is to examine the relevant updated published results on the outcome measures that can be used to assess the quality of shortstay surgery for thyroid disease with well-controlled trials. We discuss the special ethical and legal issues that this thyroid surgery raises. Searches were last updated in May 2007.

Source: Medline

Available in fulltext at Expert Review of Medical Devices; Collection notes: On first login to a ProQuest journal you will need to select 'Athens (OpenAthens Federation)' from Select Region, and then 'NHS England' from Choose your Library.

Ambulatory thyroid surgery: need for stricter patient selection criteria.
The number of outpatient surgical procedures performed in hospitals increases daily. In some countries, outpatient operations outnumber inpatient operations. The incidence of thyroid disorders and in particular, the cancer forms, has been increasing sharply for many years in several countries. Even if thyroid surgery is performed with low morbidity, no mortality, and short operation time, some potentially lethal complications are strong arguments against shortening of hospital stay. The purpose of this review is to examine the relevant updated published results on selection criteria measures that can be used to assess patients referred to short-stay surgery for thyroid disease.

Source: Medline

Video-assisted thyroidectomy performed in a one-day surgery setting.

BACKGROUND AND AIM: Evidence base data have demonstrated that video-assisted thyroidectomy (VAT) has good results regarding safety, morbidity, patient cure rate, pain and cosmesis. Aim of this study was to evaluate the performance of VAT in an ambulatory setting (i.e. one-day surgery, <24-h stay).MATERIALS AND METHODS: Between September 2007 and July 2008, 43 patients underwent VAT in a one-day surgery division. Patient selection criteria for VAT were: thyroid nodules <30 mm, gland volume <20 ml, no history of thyroiditis or neck surgery or irradiation, "low risk" papillary carcinoma and absence of enlarged lymph nodes. One-day surgery patient selection criteria were medical and social logistic (Materazzi G, et al. Eur Surg Res 2007;39:182-8). Intraoperative neuromonitoring (IONM) was used for RLN identification. Intact parathyroid hormone (iPTH) levels were determined early postoperatively at +6-h. Postoperative complications, conversion rate were analyzed.RESULTS: No cases required conversion to open surgery or ordinary recovery (i.e. >24h). Incidence of temporary hypoparathyroidism was 11.6% (5/43) with no case of symptomatic hypocalcemia. Incidence of temporary RLN injury was 2.3% (1 patient) with no case of permanent or bilateral RLN injury. All patients were satisfied with the type of recovery.CONCLUSIONS: This preliminary report is an example of the safe incorporation between new technologies (IONM, early iPTH measurement) with improvement of the quality and safety of VAT performed in a one-day surgery setting.

Source: Medline

Surveillance of surgical site infections after thyroidectomy in a one-day surgery setting.

BACKGROUND AND AIM: Different studies underline the importance of hospital stay on the development of infectious complications. We performed an audit of surgical site infections (SSI) after thyroidectomy was performed in a one-day surgery setting.MATERIALS AND METHODS: One hundred and twelve consecutive patients admitted between April 2007 and discharged before May 2008 were studied. Patient selection criteria for one-day surgery were specific medical and social-logistic status. The technique of thyroidectomy was standardized.RESULTS: SSI affect 2.6% of patients undergoing thyroid surgery with short hospitalization. The incidence of SSI was 3.2% following thyroidectomy, 2% for lobectomy. Mean time interval to symptom onset was 3 days (range 2-6). Most likely organism was Staphylococcus aureus. WI was associated with prolonged ambulatory medications.CONCLUSIONS: Rates of SSI are similar to those described in the literature with longer hospitalization. All SSI become evident only after patient discharge. Prevention of SSI is very much the responsibility of the persons working in the operating theater. Effort should be made to improve sterile technique. Appropriate antibiotic coverage is indicated when infection develops postoperatively.

Source: Medline

New technologies in ambulatory thyroid surgery.

Author(s) Dionigi G, Rovera F, Carrafiello G, Bacuzzi A, Boni L, Dionigi R
Citation: International Journal Of Surgery, 2008, vol./is. 6 Suppl 1/(S13-5), 1743-9159;1743-9159 (2008)
Publication Date: 2008
Abstract: The number of outpatient surgical procedures performed in hospitals increases daily. In some countries, outpatient operations outnumber inpatient operations. The incidence of thyroid disorders and in particular, the cancer forms, has been increasing sharply for many years in several countries. Even if thyroid surgery is performed with low morbidity, no mortality, and short operation time, some potentially lethal complications are strong arguments against shortening of hospital stay. The purpose of this review is to examine the relevant updated published results on selection criteria measures that can be used to assess patients referred to short-stay surgery for thyroid disease.

Source: Medline
Citation: International Journal Of Surgery, 2008, vol./is. 6 Suppl 1/(S22-5), 1743-9159;1743-9159 (2008)
Publication Date: 2008
Abstract: Thyroid operations are increasingly performed in the outpatient setting. In general the essential objectives for thyroidectomy are: sparing the parathyroid glands, avoidance of injury to the laryngeal nerves, an accurate hemostasis and an excellent cosmesis. In the last 10 years major improvements and new technologies have been proposed and applied in thyroid surgery; among these mini-invasive thyroidectomy, new devices for achieving hemostasis and dissection, intraoperative neuromonitoring, and PTH assay technology. This paper reviews relevant medical literature published on the influence of these new technologies on quality of thyroid surgery as well as prevention of postoperative morbidity and mortality. Searches were last updated April 2008.
Source: Medline

Surgeon volume as a predictor of outcomes in inpatient and outpatient endocrine surgery.
Author(s) Stavrakis AI, Ituarte PH, Ko CY, Yeh MW
Citation: Surgery, December 2007, vol./is. 142/6(887-99; discussion 887-99), 0039-6060;1532-7361 (2007 Dec)
Publication Date: December 2007
Abstract: BACKGROUND: Surgeon experience correlates with improved outcomes for complex operations. Endocrine operations are increasingly performed in the outpatient setting, where outcomes have not been systematically studied. We examined the effect of surgeon volume on clinical and economic outcomes for thyroid, parathyroid, and adrenal surgery across inpatient and outpatient settings.METHODS: New York and Florida state discharge data (2002) were studied. Surgeons were grouped by annual endocrine operative volume: Group A, 1 to 3 operations; B, 4 to 8; C, 9 to 19; D, 20 to 50; E, 51 to 99; and F, >or=100. Multiple regression analyses were applied to analyze complications, length of stay (LOS), and total charges (TC), while controlling for comorbidity, economic factors, and hospital-centric variables.RESULTS: We identified 13,997 discharges, with 28% of operations performed on an outpatient basis (admission/discharge on same calendar day). For all cases, group A contributed disproportionately more complications (observed/expected [O/E] 1.65, P < .001) and Group F contributed disproportionately less (0.52; P < .001). High surgeon volume was associated with decreased LOS and reduced TC. Hospital volume had a negligible effect on outcomes.CONCLUSIONS: Surgeon volume correlates inversely with complication rates, LOS, and TC, in endocrine surgery. The lowest complication rates are achieved by surgeons performing >or=100 endocrine operations annually.
Source: Medline
Available in print at Lincoln County Hospital Professional Library

Minimally invasive thyroidectomy: an emerging standard of care.
Author(s) Terris DJ
Citation: Minerva Chirurgica, October 2007, vol./is. 62/5(327-33), 0026-4733;0026-4733 (2007 Oct)
Publication Date: October 2007
Abstract: Virtually all disciplines of surgery now offer some version of minimal access surgical techniques. Because of the challenges related to gas insufflation in the head and neck, endoscopic surgery in this region remains in its infancy. Miccoli and his group at the University of Pisa are responsible for developing a surgical approach that relies on endoscopic and ultrasonic technology, which is easily the most widely practiced technique by minimal access surgeons around the globe. Video-assisted thyroid surgical techniques have emerged as the most feasible compromise between ample exposure and minimal access surgery. In addition to the application of technology, modern thyroid surgery incorporates a number of departures from classical training, including marking of the patient upright in the holding area, no or minimal neck extension, infrequent use of a drain, and outpatient surgery. We have emphasized the concept of customizing the procedure to the patient and disease characteristics, rather than the reverse. Therefore, a spectrum of surgical techniques can be helpful, particularly for the inexperienced minimal access thyroid surgeon. Correspondingly, staging of minimally invasive thyroidectomy has been recommended in order to allow for both uniform reporting of outcome measures across patient populations and a logical basis for determining patient eligibility. With an increasingly sophisticated public, which has virtually unlimited access to medical information, the burden will be on the modern thyroid surgeon to stay abreast of surgical or
technical improvements that will yield superior outcomes. Looking forward, it would seem inevitable that continued technologic advances will help surgeons achieve less invasive, safer, and more easily performed procedures.

Source: Medline

Ambulatory thyroid surgery: an audit of safety and outcomes.
Author(s) Chin CW, Loh KS, Tan KS
Citation: Singapore Medical Journal, August 2007, vol./is. 48/8(720-4), 0037-5675;0037-5675 (2007 Aug)
Publication Date: August 2007
Abstract: INTRODUCTION: Elective hemithyroidectomy is a common operation with a low complication rate. The aim of this study was to conduct an audit on the safety and efficacy of ambulatory hemithyroidectomy in carefully-selected patients.METHODS: This is a cohort study of 114 patients who were scheduled to have either ambulatory (50 patients) or inpatient (64 patients) hemithyroidectomy over a two-year period. Selection for day case surgery was based on pre-established criteria and patient preference. Preoperative patient characteristics, indications for surgery, operative characteristics, histological diagnoses and surgical complications are compared.RESULTS: Of the 50 patients selected for day case surgery, 45 (90 percent) were discharged on the day of surgery. The complication rates of the two groups were similar. Two patients required admission for wound complications and the other three were admitted for non-medical reasons.CONCLUSION: The overall complication rate was low. There were no differences in the rate of complications between ambulatory and inpatient hemithyroidectomies. Ambulatory hemithyroidectomy can be performed safely for a select group of patients in the setting of appropriate facility and management protocol.

Source: Medline

Day-case and short-stay surgery: the future for thyroidectomy?.
Author(s) Mirnezami R, Sahai A, Symes A, Jeddy T
Citation: International Journal of Clinical Practice, July 2007, vol./is. 61/7(1216-22), 1368-5031;1368-5031 (2007 Jul)
Publication Date: July 2007
Abstract: Day-case and short-stay thyroid surgery is carried out routinely around the world. In the UK longer postoperative stay is usually advocated to circumvent/identify potentially catastrophic complications following thyroïdectomy. In the current climate of the National Health Service with focus on patient-centred service, reduced hospital stay and cost cutting, we conducted a review to provide a comprehensive assessment of day-case and short-stay thyroidectomy. A systematic electronic literature search using MEDLINE, Ovid, Embase, PubMed and Cochrane databases revealed 22 original studies that met our inclusion criteria. Generally studies demonstrated encouraging results regarding the feasibility of these approaches. Complication rates appeared equivocal to traditional longer stay thyroidectomy and only one patient died. The majority of life-threatening complications occurred in the immediate postoperative period. Of concern, some late haemorrhage has been documented at 5 days postsurgery. Complication rates following day-case/short-stay thyroid surgery appears comparable with inpatient thyroidectomy. Further study is required to determine whether this approach is truly safe.

Source: Medline
Available in fulltext from International Journal of Clinical Practice at EBSCOhost

Outpatient thyroid surgery is safe and desirable.
Author(s) Terris DJ, Moister B, Seybt MW, Gourin CG, Chin E
Citation: Otolaryngology - Head & Neck Surgery, April 2007, vol./is. 136/4(556-9), 0194-5998,0194-5998 (2007 Apr)
Publication Date: April 2007
Abstract: BACKGROUND: Thyroid surgery has traditionally been done on an inpatient basis. With the advent of minimal access techniques, drains are frequently not required and ambulatory thyroidectomy is possible.DESIGN: Prospective, nonrandomized analysis of consecutive series of patients.METHODS AND MATERIALS: Patients undergoing thyroid surgery between 12/1/04 and 10/31/05 were stratified based on admission status. Demographic data were collected and outcome measures were considered.RESULTS: Ninety-one patients underwent thyroid surgery. Fifty-two were done on an outpatient basis, 26 patients were observed under a 23-hour status, and 13 were admitted. There were two complications in the outpatient group and one in the inpatient group (P = 1.0). Costs were
significantly lower for outpatients ($7,814) than for inpatients ($10,288; P < 0.0001). SIGNIFICANCE: In carefully selected patients who prefer convalescence at home, outpatient thyroidectomy can be performed safely and cost-effectively, particularly when prophylactic calcium supplementation is utilized after total thyroidectomy to prevent transient postoperative hypocalcemia.

Source: Medline

One-day thyroid surgery: retrospective analysis of safety and patient satisfaction on a consecutive series of 1,571 cases over a three-year period.


Citation: European Surgical Research, 2007, vol./is. 39/3(182-8), 0014-312X;0014-312X (2007)

Publication Date: 2007

Abstract: Short-stay thyroid surgery (<24 h hospital stay) is becoming increasingly popular but some potentially lethal complications are considered strong arguments against shortening hospitalization after thyroidectomy. The authors reviewed the data of 1,571 patients undergoing one-day thyroid surgery over a 3-year period to determine safety and patient satisfaction. There were 1,244 females and 327 males. Mean age was 43 years. Patient satisfaction was evaluated by a questionnaire given on discharge, while post-discharge surgical recovery was analyzed by the PSR scale. Total thyroidectomy was performed in 1,119 patients (71%), hemithyroidectomy in 450 (29%), isthmusectomy in 2. Morbidity occurred in 152 patients (9.6%). Surgical complications were transient hypocalcemia in 112 cases and permanent hypoparathyroidism in 3; monolateral transient nerve palsy occurred in 10 cases, bilateral in 3; definitive monolateral recurrent palsy in 4 cases. Bleeding requiring re-intervention occurred in 10 cases, wound complications in 5 cases, and intraoperative tracheal lesion in 1 patient. Among complicated patients, 129 (84.8%) were treated after discharge as outpatients. Conversion to inpatient treatment occurred in 28 patients (1.7%) (25 for surgical reasons). Four patients (0.2%) required hospital readmission. Patients were very satisfied in 84.2%, satisfied in 9.5%, poorly satisfied in 4.3%, completely unsatisfied in 2%. Postoperative recovery mean score by PSR scale resulted in 85.14% (0-100%). Our results confirm that the one-day surgery model is safe, effective, and highly agreeable in patients undergoing surgery for thyroid disease.

Source: Medline

Day case thyroid surgery: patients are up for it -- are you?

Author(s) Lieske B, Howat G, Sames M, McLaren A

Citation: Journal of One-Day Surgery, 01 December 2007, vol./is. 17/4(100-102), 09635386

Publication Date: 01 December 2007

Source: CINAHL

Outpatient thyroid surgery is safe and desirable.

Author(s) Terris DJ, Moister B, Seybt MW, Gourin CG, Chin E

Citation: Otolaryngology-Head & Neck Surgery, 01 April 2007, vol./is. 136/4(556-559), 01945998

Publication Date: 01 April 2007

Source: CINAHL

How we do it: Dispensing with drains in hemithyroidectomy--a feasibility study.

Author(s) Hopkins C, Mansuri S, Terry RM

Citation: Clinical Otolaryngology, October 2006, vol./is. 31/5(452-5), 1749-4478;1749-4478 (2006 Oct)

Publication Date: October 2006

Abstract: Keypoints * The NHS plan states that 75% of all elective surgery should be carried out as day cases, but reports confirm that we are falling well below such targets. * The use of the harmonic scalpel in thyroidectomy in our department has facilitated faster surgery, minimal intra-operative haemorrhage, and reduced postoperative blood loss into the drain. * We propose that patients with small solitary nodules (<25 cm(3) on preoperative ultrasound) undergoing hemithyroidectomy for diagnostic purposes are candidates for selective use of drains, or where used, early removal of the drain and same day discharge.

Source: Medline
Outpatient thyroidectomy is safe in selected patients.

Author(s) Spurgeon D

citation: BMJ, September 2006, vol./is. 333/7569(622), 0959-535X;1756-1833 (2006 Sep 23)

Publication Date: September 2006

Source: Medline

Available in fulltext from BMJ: British Medical Journal (Overseas & Retired Doctors Edition) at EBSCOhost

Available in fulltext from BMJ at Highwire Press

Available in print at Lincoln County Hospital Professional Library

Thyroid surgery: changing patterns of practice.

Author(s) Terris DJ, Seybt MW, Slupsinski N, Gourin CG, Chin E

Citation: Laryngoscope, June 2006, vol./is. 116/6(911-5), 0023-852X;0023-852X (2006 Jun)

Publication Date: June 2006

Abstract: OBJECTIVE: The practice of thyroidectomy has evolved over the past 10 years with the introduction of minimally invasive surgery, laryngeal nerve monitoring, and outpatient surgery. We sought to investigate corresponding trends in the disciplines performing thyroid surgery.METHODS AND MATERIALS: The authors conducted a nonrandomized, case-controlled comparison of surgical volumes and systematic analysis of publication volumes. Two surrogates for the proportion of thyroidectomies being performed by otolaryngologists-head and neck surgeons (OHNS) and general surgeons (GS) were chosen: 1) the operative case logs of graduates from American training programs in OHNS and GS from 1995 through 2004 were compared; and 2) the number of scientific articles published relating to thyroid surgery were systematically queried for two timeframes (1990-1994 and 2000-2004).RESULTS: There was a gradual increase in the mean number of thyroidectomies performed by GS residents from 13.2 in 1995 to 18.2 in 2004. During the same timeframe, the mean number of thyroidectomies performed by OHNS residents more than doubled from 15.0 to 33.5. The number of American GS thyroid publications from 1990 to 1994 was 79, compared with 98 in the period 2000 to 2004, representing a 24% increase. During the same timeframe, the number of American OHNS articles increased from 14 to 49 (a 250% increase). The relative proportion of thyroid publications authored by American otolaryngologists more than doubled from 15.1% to 33.3% (P = .0017).CONCLUSIONS: A clear trend is emerging in the pattern of thyroid surgery in that a growing proportion of publications are being authored by otolaryngologists compared with general surgeons, and the average number of procedures performed by graduating chief residents is now 84% higher in otolaryngology compared with general surgery.

Source: Medline

Available in fulltext from Laryngoscope at Ovid

Thyroidectomy using monitored local or conventional general anesthesia: an analysis of outpatient surgery, outcome and cost in 1,194 consecutive cases.

Author(s) Spanknebel K, Chabot JA, DiGiorgi M, Cheung K, Curty J, Allendorf J, LoGerfo P

Citation: World Journal of Surgery, May 2006, vol./is. 30/5(813-24), 0364-2313;0364-2313 (2006 May)

Publication Date: May 2006

Abstract: BACKGROUND: Critical appraisal of safety, feasibility, and economic impact of thyroidectomy procedures using local (LA) or general anesthesia (GA) is performed.METHODS: Consecutive patients undergoing thyroidectomy procedures were selected from a prospective database from January 1996 to June 2003 of a single-surgeon practice at a tertiary center. Statistical analyses determined differences in patient characteristics, outcomes, operative data, and length of stay (LOS) between groups. A cohort of consecutive patients treated in 2002-2003 by all endocrine surgeons at the institution was selected for cost analysis.RESULTS: A total of 1,194 patients underwent thyroidectomy, the majority using LA (n = 939) and outpatient surgery (65%). Female gender (76%), body mass index > or = 30 kg/m2 (29%), median age (49 years), and cancer diagnosis (45%) were similar between groups. Extent of thyroidectomy (59% total) and concomitant parathyroidectomy (13%) were similarly performed. GA was more commonly utilized for patients with comorbidity [15% vs. 10%, Anesthesia Society of America (ASA) >
or = 3; P < 0.001], symptomatic goiter (13% vs. 7%; P = 0.004), reoperative cases (10% vs. 6%; P = 0.01), and concomitant lymphadenectomy procedures (15% vs. 3%; P < 0.001). GA was associated with significant increase in LOS > or = 24 hours (17 % vs. 4%) or overnight observation (49 % vs. 14%), P < 0.001. Operative room utilization was significantly associated with type of anesthesia (180 min vs. 120 min, GA vs. LA, P < .001) and impacted to a lesser degree by surgeon operative time (89 minutes vs. 76 minutes, GA vs. LA; P = .089). Overall morbidity rates were similar between groups (GA 5.8 % vs. LA 3.2%). The actual total cost (ATC) per case for GA was 48% higher than for LA and 30% higher than the ATC for all procedures (P = 0.006), with the combined weighted average impacted by more LA cases (n = 217 vs. 85). CONCLUSION: These data from a large, unselected group of thyroidectomy patients suggest LA results in similar outcomes and morbidity rates to GA. It is likely that associated LA costs are lower.

Source: Medline
Available in fulltext from World Journal of Surgery at EBSCOhost

Local Anesthesia With Monitored Anesthesia Care vs General Anesthesia in Thyroidectomy: A Randomized Study
Author(s) Snyder SK, Roberson CR, Cummings CC, Rajab MH
Citation: Archives of Surgery, February 2006, vol./is. 141/2(167-73), 0004-0010;0004-0010 (2006 Feb)
Publication Date: February 2006
Abstract: BACKGROUND: Early in the 20th century, thyroid surgery was performed using local anesthetic techniques. When general anesthesia became safer, surgeons started performing thyroidectomy exclusively under general anesthesia. However, recent descriptions of thyroidectomy under local anesthesia claim similar results to thyroidectomy under general anesthesia. Surgery conducted under local anesthesia can result in early discharge, ie, a hospital stay of less than 8 hours. HYPOTHESIS: Thyroidectomy can be performed under local anesthesia with monitored anesthesia care (MAC) with results similar to general anesthesia in an outpatient or inpatient surgery setting. DESIGN: A prospective randomized study comparing local anesthesia with MAC vs general anesthesia in adult patients undergoing thyroidectomy in a potential outpatient setting, defined as same-day discharge. Patients were excluded if they were not able to receive local or general anesthesia. In addition, we performed an outcome evaluation of the use of local anesthesia with MAC for thyroidectomy and the use of outpatient surgery for thyroidectomy. We compared 58 consecutive thyroidectomies performed prior to the study with 58 consecutive thyroidectomies performed after the study. SETTING: A 486-bed university-affiliated hospital. RESULTS: Fifty-eight patients undergoing thyroidectomy received random assignment: 29 to local anesthesia with MAC and 29 to general anesthesia under study protocol. Fifty-one surgical procedures (88%) were completed as outpatient surgery. No significant differences were found between the 2 study groups in demographics, postoperative adverse symptoms, complications, hospital admission, or patient satisfaction. Patients in the general anesthesia group spent, on average, more time postoperatively than patients in the group that received local anesthesia with MAC in the outpatient surgery center until same-day discharge (P = .02). When compared before the study, we found a significant increase after the randomized study in the use of local anesthesia with MAC (P<.001) and outpatient thyroidectomies (P<.001). CONCLUSIONS: Thyroidectomy can be performed in the studied patient population under either general anesthesia or local anesthesia with MAC, expecting similar operative results, clinical results, and patient satisfaction. In addition, local anesthesia with MAC can reduce the postoperative time spent in an outpatient surgery setting with potential health care cost savings.
Source: Medline
Available in fulltext from Archives of Surgery at Free Access Content
Available in fulltext from Archives of Surgery at Silverchair Information Systems

Day case thyroid surgery in a Midlands hospital.
Author(s) Addison S, Salanke U, Khaira H
Citation: Journal of One-Day Surgery, 01 March 2006, vol./is. 16/1(7-8), 09635386
Publication Date: 01 March 2006
Source: CINAHL

A pilot study of day case and short-stay thyroid surgery.
Author(s) Howat G, Weisters M, Sames M, McLaren A
Citation: Journal of One-Day Surgery, 01 March 2006, vol./is. 16/1(9-12), 09635386
Day care thyroid surgery: the way of the future.
Author(s) Hisham AN, Harjit K
Citation: Journal of One-Day Surgery, 01 March 2006, vol./is. 16/1(13-15), 09635386
Publication Date: 01 March 2006
Source: CINAHL

Same-day discharge after total thyroidectomy: the value of 6-hour serum parathyroid hormone and calcium levels.
Author(s) Mishra AK, Agarwal A
Citation: Head & Neck, December 2005, vol./is. 27/12(1112; author reply 1112-3), 1043-3074;1043-3074 (2005 Dec)
Publication Date: December 2005
Source: Medline
Available in fulltext from Head & Neck at EBSCOhost

Thyroidectomy using local anesthesia: a report of 1,025 cases over 16 years.
Author(s) Spanknebel K, Chabot JA, DiGiorgi M, Cheung K, Lee S, Allendorf J, Logerfo P
Citation: Journal of the American College of Surgeons, September 2005, vol./is. 201/3(375-85), 1072-7515;1072-7515 (2005 Sep)
Publication Date: September 2005
Abstract: BACKGROUND: Thyroid surgery is performed using general anesthesia by the majority of surgeons in current practice. This study was conducted to analyze the utility and safety of local anesthesia for thyroid surgery. STUDY DESIGN: Prospective data were collected for 1,025 consecutive patients undergoing thyroidectomy using monitored local anesthesia during a 16-year period by a single surgeon at a tertiary referral center. Patient features, operative data, length of stay, and complications are reported with multivariate analysis for factors associated with outcomes. RESULTS: A total of 1,025 patients underwent local thyroidectomy procedures; 34 required conversion to general anesthesia (3.3%). Total thyroidectomy (n = 589), lobectomy (n = 391), or subtotal and partial resections (n = 45) were performed for benign (n = 402), suspicious (n = 154), or malignant (n = 463) conditions. Local anesthesia was successful for thyroidectomy with concomitant parathyroidectomy (n = 142) or lymphadenectomy (n = 27), extensive goiter (n = 102), and reoperative neck procedures (n = 59). The majority of patients (90%) were considered low to intermediate risk (American Society of Anesthesiologists score <= 2), but 10% were considered high-risk (American Society of Anesthesiologists score >/= 3). With accumulating experience, local anesthesia was applied more broadly to high-risk (p < 0.001), older (p = 0.04), or obese patients (p = 0.04), and likewise used in more extensive goiter resections (p = 0.05) and bilateral procedures (p < 0.001). Patients experienced temporary (n = 20) and permanent (n = 10) recurrent laryngeal nerve injuries, hematoma (n = 5), permanent hypocalcemia (n = 1), emergent tracheostomy (n = 1), wound infection (n = 1), and myocardial infarction (n = 1). Outpatient procedures (96%) substantially increased with maturation of the local anesthesia program (p < 0.001). Length of stay > 24 hours was associated with patient comorbidity (p < 0.001, relative risk 3.25). CONCLUSIONS: Thyroidectomy using local anesthesia appears safe and applicable to a wide range of patients, including those who pose a general anesthetic risk or require more complex procedures, when performed by an experienced surgeon.
Source: Medline
Available in print at Grantham Hospital Staff Library

Same-day discharge after total thyroidectomy: the value of 6-hour serum parathyroid hormone and calcium levels.
Author(s) Payne RJ, Hier MP, Tamilia M, Mac Namara E, Young J, Black MJ
Citation: Head & Neck, January 2005, vol./is. 27/1(1-7), 1043-3074;1043-3074 (2005 Jan)
Publication Date: January 2005
Abstract: BACKGROUND: The purpose of this study was to determine whether patients who undergo total thyroidectomy will have postoperative hypocalcemia develop when they reach the critical 6-hour serum levels defined as parathyroid hormone (PTH) > or =28 ng/L and simultaneous corrected calcium > or =2.14 mmol/L. METHODS: This was a prospective study involving 70 consecutive total thyroidectomy patients. There were 51 women and 19 men involved in the study. The mean age was 49.3 years (range, 21-76 years). Patients
who had completion thyroidectomy or neck dissections were excluded. Patients undergoing parathyroidectomy at the time of thyroidectomy were also excluded. PTH and corrected calcium levels were measured postoperatively at 6, 12, and 20 hours.

RESULTS: Hypocalcemia developed in 24% (17 of 70) of the patients. Of the 53 patients who remained normocalcemic, 68% (36 of 53) reached the 6-hour critical level. None of the hypocalcemic patients (0 of 17) attained the 6-hour critical level (chi-square test p < .0001). This translates into a specificity of 100% (95% confidence interval [CI], 80.5% to 100%) and a positive predictive value of 100% (95% CI, 90.1% to 100%).

CONCLUSIONS: The simultaneous evaluation of PTH and corrected calcium levels 6 hours after thyroidectomy allows for an accurate prediction of the trend of serum calcium. This study enables us to confidently consider same-day discharge for most of our thyroidectomy patients. Copyright 2004 Wiley Periodicals, Inc.

Source: Medline

Short-stay thyroid surgery.
Author(s) Sahai A, Symes A, Jedly T
Citation: British Journal of Surgery, January 2005, vol./is. 92/1(58-9), 0007-1323;0007-1323 (2005 Jan)
Publication Date: January 2005
Source: Medline
Available in fulltext from British Journal of Surgery at the ULHT Library and Knowledge Services' eJournal collection
Available in print at Lincoln County Hospital Professional Library

One-day vs standard thyroidectomy. A perspective study of feasibility.
Author(s) Testini M, Nacchiero M, Miniello S, Piccinni G, Di Venere B, Lissidini G, Bussetta E, Bonomo GM
Citation: Minerva Endocrinologica, September 2002, vol./is. 27/3(225-9), 0391-1977;0391-1977 (2002 Sep)
Publication Date: September 2002
Abstract: BACKGROUND: The aim of this randomized controlled trial is to evaluate the feasibility of one-day thyroidectomy, comparing the results of this method vs standard thyroidectomy.METHODS: From June 2000 to June 2001, 110 patients underwent total thyroidectomy under general anesthesia for thyroid disease. The patients were randomized into 2 groups: in group A (40 patients) we used the one-day thyroidectomy; in group B (70 patients) we employed standard thyroidectomy. In both groups postoperative mobilization was immediate and the mean postoperative hospitalization stay was 21 hours (range: 18-24) in group A and 60 hours (range: 21-120) in group B. The mean follow-up was 10 months (range: 6-18 months).RESULTS: The patients of group A showed hypoparathyroidism with temporary hypocalcaemia in 3 cases (7.5%) vs 5 (7.1%) of group B; this finding was not statistically significant. No cases of definitive hypoparathyroidism, nor lesions of RLN, of the external branches of the superior laryngeal nerve, nor postoperative hemorrhage were observed in either group.CONCLUSIONS: The one-day thyroidectomy was found to be a safe, feasible and cost effective procedure, it is convenient for both the patient and the surgeon, and offers the same immediate and long-term results as the standard thyroidectomy in selected patients.

Source: Medline

Short-stay thyroidectomy--trends in length of postoperative hospitalisation over a period of 10 years in a developing country central hospital.
Author(s) Yerzingatsian KL
Citation: South African Journal of Surgery, May 2002, vol./is. 40/2(81), 0038-2361;0038-2361 (2002 May)
Publication Date: May 2002
Source: Medline
Available in fulltext from South African Journal of Surgery at Free Access Content

Minimally invasive parathyroidectomy under local anesthesia.
Author(s) Ishiguro K, Ohgi S
Citation: Biomedicine & Pharmacotherapy, 2002, vol./is. 56 Suppl 1/(31s-33s), 0753-3322;0753-3322 (2002)
Publication Date: 2002
Abstract: Primary hyperparathyroidism is commonly associated with uniglandular swelling,
and thus the lesion has been localized before surgical reduction. Since March 1997, we have performed uniglandular parathyroidectomy under local anesthesia with combined scintigram and ultrasound tomography in patients with primary hyperparathyroidism preoperatively identified for uniglandular swelling. We had seen consecutive 18 patients with primary hyperparathyroidism until April 2001; 15 of those underwent surgical reduction. Postoperative intact PTH value was normalized in 14 patients. The remaining patient, diagnosed with thyroid adenoma, required re-surgery due to proved intake on scintigram a year later. Mean follow-up period is 33 months, and the disease does not relapse. In addition, we removed the swollen gland in two patients with renal hyperparathyroidism under local anesthesia; the disease involved two glands in a patient and one gland in another patient. After surgery, their subjective symptoms including itching and arthralgia were eliminated, and did not relapse at 30 and 14 months, respectively. Minimally invasive parathyroidectomy under local anesthesia might be performed as a same-day surgery, and improve QOL of patients.

Source: Medline

Post-thyroidectomy hypocalcemia and feasibility of short-stay thyroid surgery.

Author(s) De Pasquale L, Schubert L, Bastaglì A
Citation: Chirurgia Italiana, September 2000, vol./is. 52/5(549-54), 0009-4773;0009-4773 (2000 Sep-Oct)
Publication Date: September 2000
Abstract: AIM: To study the feasibility of thyroid surgery in a short-stay hospitalization regimen, with particular reference to postoperative hypocalcemia.METHODS: The clinical files of 696 patients operated on from January 1977 to January 2000 for thyroid diseases were analyzed. They were divided into groups on the basis of extent of operation and type of disease. Hypocalcemia incidence was compared between the different groups of patients. Data were analyzed statistically using the chi-square and Fisher’s exact tests.RESULTS: There were 74 temporary (10.6%) and 12 (1.7%) persistent hypocalcemia cases. None of these occurred in patients undergoing lobectomy. The incidence of hypocalcemia was higher in two-lobes vs. single-lobes operations (p < 0.05), in total thyroidectomy vs. lymphadenectomy vs. total thyroidectomy (p < 0.05) and in hyperthyroidism vs. patients with normal serum hormone levels (p < 0.05). 84.9% of hypocalcemia cases developed on postoperative day 1, with only one tetanic crisis.CONCLUSIONS: Thyroid surgery in the short-stay hospitalization regimen is feasible for all patients undergoing lobectomy. Patients undergoing subtotal or total thyroidectomy may be treated in a short-stay regimen, only if they are affected with non-hyperfunctioning benign diseases and if they have normal serum calcium levels on postoperative day 1.

Source: Medline

Local/regional anesthesia for thyroidectomy: evaluation as an outpatient procedure.

Author(s) Lo Gerfo P
Citation: Surgery, December 1998, vol./is. 124/6(975-8; discussion 978-9), 0039-6060:0039-6060 (1998 Dec)
Publication Date: December 1998
Abstract: BACKGROUND: The purpose of this paper was to review my evolving experience with local/regional anesthesia in an outpatient setting.METHODS: Two hundred three consecutive patients during a 9-year period who chose to undergo thyroid operation under regional/local anesthesia were reviewed. Early discharge was offered to patients who were observed for 6 hours without neck swelling and who had no surgical reasons for delaying discharge.RESULTS: In group A there were 2 patients who were given inhalation anesthesia during operation compared with none in groups B and C. The average length of stay in group A was 0.49 days, 0.55 days in group B, and 0.24 days in group C. Eighty-five percent of the patients whose operation began before 1300 hours were discharged within 6 hours versus only 50% of those operated on later in the day. Forty-seven percent of patients in group A, 65% of group B, and 77% of patients in group C were discharged within 6 hours of operation. On the basis of previous experience with general anesthesia, discharge time is not significantly influenced by the type of anesthesia chosen. There were no readmissions to the hospital, but 2 episodes of postoperative bleeding required reoperation. Survey showed that 95% of patients rated the level of pain equivalent or less severe than dental procedures under local anesthesia, and all patients would choose local again.CONCLUSIONS: These data suggest that thyroidectomy can be performed with the patient under local/regional anesthesia, with low morbidity and high patient satisfaction. Most patients can be discharged within 6 to 8 hours, and these discharges were not
associated with readmissions.

Source: Medline

"Same-day" thyroid surgery: an analysis of safety, cost savings, and outcome.

Author(s) McHenry CR

Citation: American Surgeon, July 1997, vol./is. 63/7(586-9; discussion 589-90), 0003-1348:0003-1348 (1997 Jul)

Publication Date: July 1997

Abstract: Twenty-three-hour observation or "same-day" thyroid surgery was initiated at our institution for patients with nodular thyroid disease in July 1993. A retrospective review of all patients with nodular thyroid disease who underwent same-day thyroid surgery was performed to determine the safety and cost effectiveness of this approach. Eighty consecutive patients with nodular thyroid disease underwent thyroidectomy, followed by < or = 23 hours of observation in 71 (88%) and a planned hospital admission in 9 (12%) patients. Hospital admission preceded thyroidectomy in four patients (5%) because of transient ischemic attacks (one), airway obstruction (one), pulmonary disease (one), and suppurative thyroiditis (one). Five patients (6%) had a planned postoperative admission because of concomitant modified neck dissection (two), median sternotomy (two), or soft tissue tumor resection (one). Of the 71 patients who underwent same-day thyroid surgery, 47 had near-total or total thyroidectomy, 20 lobectomy, and 4 completion thyroidectomy. Morbidity consisted of hematoma in one, recurrent laryngeal nerve paresis in two, and transient hypocalcemia in eight patients. Only 1 of the 71 patients required subsequent hospitalization for an anxiety attack. There was no mortality. Twenty-three-hour observation was associated with a 32 per cent and a 47 to 56 per cent reduction in cost for unilateral and bilateral thyroidectomy, respectively. Same-day thyroid surgery is a safe and costeffective approach for patients with nodular thyroid disease.

Source: Medline

Available in fulltext from American Surgeon at EBSCOhost

Outpatient thyroidectomy.

Author(s) Samson PS, Reyes FR, Saludares WN, Angeles RP, Francisco RA, Tagorda ER Jr

Citation: American Journal of Surgery, June 1997, vol./is. 173/6(499-503), 0002-9610:0002-9610 (1997 Jun)

Publication Date: June 1997

Abstract: In current clinical practice, the concept of outpatient surgery could apply to thyroidectomy. As the thyroid is anatomically accessible, its removal is not physiologically disabling; it makes surgery safer and precludes hospitalization. To evaluate the feasibility and solidity of outpatient thyroidectomy (OPT), the authors conducted a 12 1/2-year study (1982-1994), including an earlier 4-year randomized trial on 309 and cumulative posttrial experiences in 869 cases. The results showed the safety, practicality, and efficacy of OPT as compared with standard thyroidectomy. The study confirms the validity of OPT and is suggested for selected patients with thyroid disease.

Source: Medline

Same-day admission thyroidectomy programme: quality assurance study.

Author(s) Matthews TW, Lampe HB, LeBlanc S

Citation: Journal of Otolaryngology, October 1996, vol./is. 25/5(290-5), 0381-6605;0381-6605 (1996 Oct)

Publication Date: October 1996

Abstract: OBJECTIVE: This study was conducted to evaluate the effectiveness of a same-day admission thyroidectomy programme.DESIGN: Prospective patient surveys and a retrospective quality assurance study were conducted.METHOD: Management of the initial 58 patients having a thyroidectomy at St. Joseph's Hospital, London, Ontario, after May 1992 when a same-day admission thyroidectomy programme was initiated, was evaluated. Early in the process, staff evaluation of the programme was also surveyed.RESULTS: The average length of stay for these patients was reduced from 4.5 to 3.2 days. No operative delays, cancellations, readmissions, or increased complications resulted from the new protocol. Also, patient and staff acceptance of the new programme was high.CONCLUSION: Our success with this programme has encouraged us to apply these concepts to more complex surgical patients.

Source: Medline
Outpatient thyroid and parathyroid surgery: a prospective study of feasibility, safety, and costs.

Author(s) Mowschenson PM, Hodin RA

Citation: Surgery, December 1995, vol./is. 118/6(1051-3; discussion 1053-4), 0039-6060:0039-6060 (1995 Dec)

Publication Date: December 1995

Abstract: BACKGROUND: The purpose of this study was to determine feasibility, safety, and cost savings of outpatient thyroid and parathyroid surgery. METHODS: Consecutive unselected patients undergoing thyroid and parathyroid operations by two surgeons with a special interest in endocrine surgery were studied prospectively. RESULTS: One-hundred patients underwent operation, 61 as outpatients and 39 as inpatients. Outpatients included those undergoing thyroid lobectomy (39), total thyroidectomy (10), total thyroidectomy with parathyroidectomy (1), total thyroidectomy with modified neck dissection (1), and parathyroidectomy (10). Inpatients included those undergoing thyroid lobectomy (15), total thyroidectomy (8), total thyroidectomy with neck dissection (4), removal of substernal goiter (2), and parathyroidectomy (10). The average age of inpatients was slightly higher than that of outpatients (p < 0.05). Average hospital cost for outpatients was $1991 +/- $279 (range, $1594 to $2783) and for inpatients it was $2875 +/- 615 (range, $2031 to $4216), p < 0.001. Reasons for admission included extent of surgery (6), nausea (5), oversedation (4), urinary retention (2), inadequate home help (6), long travel time (2), patient preference (9), and medical reasons (5). No outpatients subsequently required admission. CONCLUSIONS: Outpatient thyroid and parathyroid surgery can be feasible and safe and resulted in a 30% savings in hospital costs. After extensive operations patients continue to require admission for postanesthetic complications, social reasons, or presence of serious comorbid disease.

Source: Medline

Evaluation of total/near-total thyroidectomy in a short-stay hospitalization: safe and cost-effective.

Author(s) Marohn MR, LaCivita KA

Citation: Surgery, December 1995, vol./is. 118/6(943-7; discussion 947-8), 0039-6060:0039-6060 (1995 Dec)

Publication Date: December 1995

Abstract: BACKGROUND: Once the decision of perform total/near-total thyroidectomy has been made, common perioperative management strategies include frequent postoperative laboratory determinations, bedside airway adjuncts, and hospital stays of about 3 days. We propose a regimen for safe, cost-effective, short-stay total/near-total thyroidectomy. METHODS: One hundred fifty total/near-total thyroidectomies performed between 1991 and 1994 were studied to test our short-stay thyroidectomy regimen. Patients were admitted the day of operation and observed overnight. Serum calcium values were obtained at 8, 14, and 20 hours after operation. Twenty-three-hour discharge criteria included no wound or airway problems, stable vital signs, tolerance of normal diet and activity, and an upsloping serum calcium curve. RESULTS: Of 150 patients undergoing total/near-total thyroidectomy, 145 (97%) met 23-hour discharge criteria. No deaths (0%) occurred. Overall morbidity (six patients [4%]) included one (0.7%) patient with postoperative hemorrhage, one (0.7%) patient with recurrent laryngeal nerve injury, three (2%) patients with transient hypocalcemia, and one (0.7%) patient with permanent hypocalcemia. Average length of stay was 1.06 days. CONCLUSIONS: Significant airway and wound problems rarely develop beyond the first 12 to 18 hours after total/near-total thyroidectomy. Serial serum calcium determinations used to construct a three-point calcium curve at 20 hours after operation can reliably and safely identify patients at risk to have clinically significant hypocalcemia. Total/near-total thyroidectomy can be performed safely in a short-stay, 23-hour hospitalization setting with substantial cost savings.

Source: Medline

Short stay thyroidectomy in a tertiary care hospital.

Author(s) Sharma AK, Mishra SK

Citation: National Medical Journal of India, September 1993, vol./is. 6/5(210-1), 0970-258X:0970-258X (1993 Sep-Oct)

Publication Date: September 1993

Abstract: BACKGROUND: Many procedures which earlier required a prolonged stay in hospital are now being performed on a short stay basis. METHODS: In 1989 we adopted a policy of 'short stay thyroidectomy' defined as a postoperative stay of less than 48 hours.
Till 1992, 162 patients were included in this study. After early drain removal at 16-43 hours (median 38), these patients were discharged 18-45 hours (median 41) after surgery. We recorded the postoperative drainage of 155 of these patients.

RESULTS: Out of 162 patients, 156 were discharged within 48 hours after surgery. No patient developed any complication which required re-admission and there was a fall in the amount of drainage within 12-18 hours.

CONCLUSION: Short stay thyroidectomy is feasible in a developing country.

Source: Medline
Available in fulltext from National Medical Journal of India at Free Access Content

Outpatient and short-stay thyroid surgery.

Author(s) Mishra SK, Sharma AK, Thakur S
Citation: Head & Neck, May 1992, vol./is. 14/3(247-8), 1043-3074;1043-3074 (1992 May-Jun)
Publication Date: May 1992

Thyroidectomy under local anesthesia.

Author(s) Hochman M, Fee WE Jr
Citation: Archives of Otolaryngology -- Head & Neck Surgery, April 1991, vol./is. 117/4(405-7), 0886-4470;0886-4470 (1991 Apr)
Publication Date: April 1991

Abstract: Thyroidectomy for benign and malignant disease is most commonly performed with the patient under general anesthesia, although the literature is sprinkled with reports of series of operations performed using local anesthetic techniques. A retrospective review of 43 sequential thyroidectomies compares 21 performed using local anesthesia with 22 performed using general anesthesia. No significant difference was demonstrated in the incidence of major complications. All patients who required a second operation to remove the remaining hemithyroid after the final pathology reports were reviewed elected local anesthesia for their second procedure, attesting to patient satisfaction. Some hemithyroidectomies performed using local anesthesia were outpatient procedures. The indications, guidelines for patient selection, and operative technique of this effective alternative approach to thyroid surgery are presented.

Source: Medline
Available in fulltext from Archives of Otolaryngology - Head and Neck Surgery at Free Access Content

Outpatient and short-stay thyroid surgery.

Author(s) Lo Gerfo P, Gates R, Gazetas P
Citation: Head & Neck, March 1991, vol./is. 13/2(97-101), 1043-3074;1043-3074 (1991 Mar-Apr)
Publication Date: March 1991

Abstract: With the realization that simple thyroid procedures had a very low rate of complication and that patients often seemed well enough to go home from the recovery room, we began performing them in an ambulatory surgery setting. We review here 134 consecutive thyroid procedures performed at Columbia Presbyterian Medical Center between July 1987 and July 1989. Patients undergoing reoperation, neck dissection, sternal splits, or other concomitant procedures were excluded. There were 105 women and 29 men with an average age of 47 years. Fifty percent of the operations were performed for benign disease, although the most common diagnosis was papillary cancer (44%). Twenty-one operations (16%) were performed under local anesthesia. Most patients underwent surgery in our ambulatory surgery unit and 76 were discharged the day of surgery. Of these patients, 21 underwent total thyroidectomy, 13 subtotal thyroidectomy, and 42 simple thyroid lobectomy. Of the 58 patients who were admitted, 53 were discharged on the day following surgery. The average length of stay was 0.49 days. Extensive pre- and postoperative teaching was given regarding the signs and symptoms associated with the complications of thyroid surgery. All patients were felt to be reliable and capable of understanding the procedure and of complying with the postoperative plans. Postoperative complications included 8 patients (6%) with transient hypocalcemia and 1 patient (0.75%) with permanent unilateral recurrent laryngeal nerve paralysis. All complications occurred in patients who underwent total thyroidectomies. No patient had a postoperative complication requiring reoperation or readmission. We conclude that by using specific selection criteria, thyroid lobectomies and subtotal thyroidectomies can be performed safely in an ambulatory setting.
surgery setting without increase in morbidity or mortality.

**Source:** Medline

**Outpatient thyroidectomy: a feasibility study.**

**Author(s):** Steckler RM

**Citation:** American Journal of Surgery, October 1986, vol./is. 152/4(417-9), 0002-9610;0002-9610 (1986 Oct)

**Publication Date:** October 1986

**Abstract:** In a group of 48 highly selected patients, thyroid surgery was performed on an outpatient basis. It was found to be a safe, cost-effective procedure, convenient for both the patient and the surgeon. Economic factors, although definitely a consideration, were not the compelling reason to perform thyroidectomy in this manner.

**Source:** Medline

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