WHAT'S NEW IN

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WHAT'S NEW IN DRUG THERAPY

THIS TOPIC LAST UPDATED: APR 28, 2021.

- ## COVID-19 INFORMATION

- ## RISK OF UNUSUAL TYPES OF THROMBOTIC EVENTS WITH COVID-19 VACCINES (APRIL 2021)

- EXTREMELY RARE CASES OF THROMBOTIC EVENTS (EG, CEREBRAL VENOUS SINUS THROMBOSIS) ASSOCIATED WITH THROMBOCYTOPENIA HAVE BEEN REPORTED FOLLOWING VACCINATION WITH CHADOX1 NCOV-19/AZD1222 (ASTRAZENECA VACCINE) AND AD26.COV2.S (JANSSEN/JOHNSON & JOHNSON VACCINE), MAINLY AMONG FEMALES <60 YEARS OLD WITHIN THE FIRST TWO WEEKS OF VACCINE RECEIPT [1,2]. AFTER INVESTIGATING THESE CASES, MEDICAL LICENSING AUTHORITIES IN EUROPE AND THE UNITED STATES HAVE CONCLUDED THAT THE BENEFITS OF THESE VACCINES OUTWEIGH THIS VERY RARE RISK. THESE EVENTS ARE POTENTIALLY RELATED TO AUTOANTIBODIES DIRECTED AGAINST THE PF4 PLATELET ANTIGEN, SIMILAR TO THOSE ASSOCIATED WITH HEPARIN-INDUCED THROMBOCYTOPENIA (HIT). PATIENTS WITH FINDINGS CONCERNING FOR THROMBOSIS OR THROMBOCYTOPENIA WITHIN A FEW WEEKS OF RECEIVING ONE OF THESE VACCINES SHOULD UNDERGO COMPLETE BLOOD COUNT WITH DIFFERENTIAL, QUANTITATIVE D-DIMER, AND HIT TESTING, AS WELL AS APPROPRIATE IMAGING. TREATMENT WITH A NON-HEPARIN/NON-WARFARIN ANTICOAGULANT AND INTRAVENOUS IMMUNE GLOBULIN IS SUGGESTED. (SEE "COVID-19: VACCINES TO PREVENT SARS-COV-2 INFECTION", SECTION ON 'RISK OF THROMBOSIS WITH THROMBOCYTOPENIA'.)

WHAT'S NEW IN DRUG THERAPY

THIS TOPIC LAST UPDATED: APR 28, 2021.

- COVID-19 INFORMATION
- MONOCLONAL ANTIBODY TREATMENT FOR OUTPATIENTS WITH MILD TO MODERATE COVID-19 (NOVEMBER 2020, MODIFIED APRIL 2021)
- TWO MONOCLONAL ANTIBODY THERAPIES TARGETING SARS-COV-2 (BAMLANIVIMAB-ETESEVIMAB [B-E] AND CASIRIVIMAB-IMDEVIMAB [C-E]) ARE AVAILABLE IN THE UNITED STATES FOR THE TREATMENT OF OUTPATIENTS WITH MILD TO MODERATE COVID-19 AND CERTAIN RISK FACTORS FOR SEVERE DISEASE [10-12]. IN PRELIMINARY REPORTS OF RANDOMIZED TRIALS, B-E AND C-E EACH REDUCED THE COMBINED RATE OF HOSPITALIZATIONS OR DEATH COMPARED WITH PLACEBO (2 VERSUS 7 PERCENT; AND 1.3 VERSUS 4.6 PERCENT, RESPECTIVELY [UNPUBLISHED DATA]) [12,13]. BASED ON THESE PRELIMINARY FINDINGS, THE NATIONAL INSTITUTES OF HEALTH HAS RECOMMENDED THE USE OF MONOCLONAL ANTIBODY THERAPY FOR SUCH PATIENTS. HOWEVER, GIVEN THAT DATA ON CLINICALLY IMPORTANT OUTCOMES ARE LARGELY UNPUBLISHED, WE SUGGEST NOT ROUTINELY USING THESE AGENTS, AND INSTEAD ENCOURAGE TREATMENT THROUGH CLINICAL TRIALS IF AVAILABLE. IF CLINICAL TRIALS ARE NOT AVAILABLE, HOWEVER, IT IS REASONABLE TO OFFER MONOCLONAL ANTIBODY TREATMENT TO ELIGIBLE PATIENTS. OUR RECOMMENDATIONS MAY CHANGE ONCE COMPLETE CLINICAL TRIAL RESULTS ARE AVAILABLE FOR ANALYSIS AND REVIEW. CLINICIANS SHOULD BE AWARE OF THE PREVALENCE OF VARIANTS IN THEIR LOCAL AREA [14], AND THE POTENTIAL RESISTANCE OF VARIANTS TO THESE AGENTS. (SEE "COVID-19: OUTPATIENT EVALUATION AND MANAGEMENT OF ACUTE ILLNESS IN ADULTS", SECTION ON 'MONOCLONAL ANTIBODIES AND CONVALESCENT PLASMA THERAPY'.)

WHAT'S NEW IN GASTROENTEROLOGY AND HEPATOLOGY

THIS TOPIC LAST UPDATED: APR 22, 2021.

- **COLORECTAL CANCER**

- **COMPUTER-AIDED DETECTION OF COLORECTAL POLYPS (APRIL 2021)**

- MISSED LESIONS AT SCREENING COLONOSCOPY ARE AN IMPORTANT CAUSE OF INTERVAL COLORECTAL CANCER. IN A META-ANALYSIS OF FIVE RANDOMIZED TRIALS INCLUDING >4000 PATIENTS, COLONOSCOPIES PERFORMED WITH A COMPUTER-AIDED POLYP DETECTION SYSTEM HAD HIGHER POOLED ADENOMA DETECTION RATES (ADRS) THAN CONVENTIONAL COLONOSCOPY (37 VERSUS 25 PERCENT) [1]. THE SYSTEM ALSO HAD HIGHER SESSILE SERRATED LESIONS PER COLONOSCOPY BUT DETECTION OF ADVANCED ADR WAS NOT SIGNIFICANTLY HIGHER. ONE SUCH COMPUTER-AIDED DETECTION SYSTEM HAS BEEN APPROVED FOR USE IN THE UNITED STATES BY THE US FOOD AND DRUG ADMINISTRATION [2]. FURTHER STUDIES ARE NEEDED TO DETERMINE IF THE USE OF COMPUTER-AIDED POLYP DIAGNOSIS METHODS CAN CONSISTENTLY AND ACCURATELY AID IN THE DETECTION AND CHARACTERIZATION OF COLORECTAL POLYPS AND IF THEIR USE CAN IMPROVE LONG-TERM OUTCOMES. (SEE "OVERVIEW OF COLONOSCOPY IN ADULTS", SECTION ON 'INSPECTION'.)

WHAT'S NEW IN HEMATOLOGY

THIS TOPIC LAST UPDATED: APR 30, 2021.

- **ANEMIA AND OTHER RED CELL DISORDERS**
- **SUTIMLIMAB FOR COLD AGGLUTININ DISEASE (APRIL 2021)**
- COLD AGGLUTININ DISEASE (CAD) IS A FORM OF AUTOIMMUNE HEMOLYTIC ANEMIA IN WHICH IGM ANTIBODIES CAN CAUSE COMPLEMENT-MEDIATED HEMOLYSIS AND SYMPTOMS RELATED TO RED BLOOD CELL AGGLUTINATION UPON COLD EXPOSURE. SUTIMLIMAB IS A MONOCLONAL ANTIBODY THAT BLOCKS COMPLEMENT COMPONENT C1S. IN A SINGLE ARM, PROSPECTIVE STUDY INVOLVING 24 PEOPLE WITH CAD WHO WERE RECEIVING REGULAR TRANSFUSIONS FOR ANEMIA, TREATMENT WITH SUTIMLIMAB LED TO AN INCREASE IN HEMOGLOBIN TO >12 G/DL OR A ≥2 G/DL INCREASE IN HEMOGLOBIN WITHOUT TRANSFUSIONS IN OVER HALF OF THE PARTICIPANTS [8]. FATIGUE WAS SIGNIFICANTLY REDUCED, AND SERIOUS ADVERSE EVENTS WERE NOT OBSERVED. THIS AGENT IS NOT YET CLINICALLY AVAILABLE. (SEE "COLD AGGLUTININ DISEASE", SECTION ON 'ANTI-COMPLEMENT THERAPIES (INVESTIGATIONAL)'.)

WHAT'S NEW IN HEMATOLOGY

THIS TOPIC LAST UPDATED: APR 30, 2021.

- **CHRONIC LEUKEMIAS AND THE MYELOPROLIFERATIVE NEOPLASMS**
- **PROGRESSION OF LOW-COUNT MONOCLONAL B CELL LYMPHOCYTOSIS (MBL) TO CHRONIC LYMPHOCYTIC LEUKEMIA (CLL) (APRIL 2021)**
- LOW-COUNT MONOCLONAL B CELL LYMPHOCYTOSIS (MBL), WHICH REFERS TO INDIVIDUALS WITH <50 MONOCLONAL B CELLS/MICROL, IS GENERALLY NOT ASSOCIATED WITH LYMPHOCYTOSIS OR OTHER CLINICAL FINDINGS. UNLIKE HIGH-COUNT MBL, WHICH IS CONSIDERED A PRECURSOR TO EARLY STAGE CHRONIC LYMPHOCYTIC LEUKEMIA (CLL), LOW-COUNT MBL HAS NOT PREVIOUSLY BEEN LINKED TO DEVELOPMENT OF CLL. A RECENT STUDY DETECTED LOW-COUNT MBL IN 13 PERCENT OF >1000 RELATIVES FROM FAMILIES WITH TWO OR MORE MEMBERS WITH CLL [14]. FURTHERMORE, WITH MEDIAN FOLLOW-UP OF SIX YEARS, INDIVIDUALS WITH LOW-COUNT MBL PROGRESSED TO CLL AT A RATE OF 1 PERCENT/YEAR. WHILE WE AWAIT VALIDATION, WE ADVISE INDIVIDUALS WITH LOW-COUNT MBL THAT THEY MAY HAVE A MODESTLY INCREASED RISK FOR DEVELOPING CLL. (SEE "MONOCLONAL B CELL LYMPHOCYTOSIS", SECTION ON 'LOW-COUNT MBL'.)

WHAT'S NEW IN HEMATOLOGY

THIS TOPIC LAST UPDATED: APR 30, 2021.

- **FOUR FACTOR PROGNOSTIC MODEL FOR IBRUTINIB IN CLL (APRIL 2021)**
- PATIENTS WITH CHRONIC LYMPHOCYTIC LEUKEMIA (CLL) HAVE AN EXTREMELY VARIABLE CLINICAL COURSE. UNTIL NOW, AVAILABLE PROGNOSTIC MODELS WERE DEVELOPED USING DATA FROM PATIENTS RECEIVING CHEMOIMMUNOTHERAPY, AND APPLICABILITY OF THESE MODELS TO PATIENTS RECEIVING TARGETED THERAPIES WAS UNKNOWN. THE NEW FOUR FACTOR PROGNOSTIC MODEL FOR IBRUTINIB USES FOUR VARIABLES (17P ABERRATION, BETA-2 MICROGLOBULIN ≥5 MG/L, LACTATE DEHYDROGENASE >250 U/L, AND PRIOR TREATMENT) TO SEPARATE PATIENTS INTO THREE RISK GROUPS WITH DIFFERENT RISK OF PROGRESSION ON IBRUTINIB THERAPY [15]. THIS SIMPLE MODEL IS THE FIRST TO BE DERIVED FROM PATIENTS TREATED WITH A TARGETED THERAPY AND CAN EASILY BE APPLIED TO MOST PATIENTS RECEIVING IBRUTINIB. (SEE "STAGING AND PROGNOSIS OF CHRONIC LYMPHOCYTIC LEUKEMIA", SECTION ON 'FOUR FACTOR PROGNOSTIC MODEL FOR IBRUTINIB'.)

WHAT'S NEW IN NEPHROLOGY AND HYPERTENSION

THIS TOPIC LAST UPDATED: APR 17, 2021.

- ACUTE AND CHRONIC KIDNEY DISEASE
- ROXADUSTAT FOR THE TREATMENT OF ANEMIA IN PATIENTS WITH NONDIALYSIS CHRONIC KIDNEY DISEASE (APRIL 2021)
- HYPOXIA-INDUCIBLE FACTOR PROLYL HYDROXYLASE INHIBITORS (HIF PHIS) ARE A CLASS OF NOVEL ORAL ERYTHROPOIESIS-STIMULATING AGENTS (ESAS) FOR THE TREATMENT OF ANEMIA DUE TO CHRONIC KIDNEY DISEASE (CKD). IN A MULTICENTER PHASE 3 TRIAL THAT RANDOMLY ASSIGNED OVER 2700 PATIENTS WITH NONDIALYSIS CKD AND ANEMIA (MEAN BASELINE HEMOGLOBIN 9 G/DL) TO THE HIF PHI ROXADUSTAT OR PLACEBO, THOSE RECEIVING ROXADUSTAT WERE MORE LIKELY TO ACHIEVE TARGET HEMOGLOBIN (77 VERSUS 9 PERCENT) AND HAD A 74 PERCENT OVERALL REDUCTION IN THE NEED FOR OTHER TREATMENTS FOR ANEMIA (WITH IRON, INJECTABLE ESAS, OR TRANSFUSIONS) [1]. ALL-CAUSE MORTALITY, CARDIOVASCULAR EVENTS, AND OVERALL SERIOUS ADVERSE EVENTS WERE SLIGHTLY HIGHER IN THE ROXADUSTAT GROUP. HIF PHIS, SUCH AS ROXADUSTAT, ARE NOT YET APPROVED FOR USE IN MOST COUNTRIES, AND ADDITIONAL LONGER-TERM STUDIES ARE NEEDED. (SEE "TREATMENT OF ANEMIA IN NONDIALYSIS CHRONIC KIDNEY DISEASE", SECTION ON 'INVESTIGATIONAL AGENTS'.)

WHAT'S NEW IN OBSTETRICS AND GYNECOLOGY

THIS TOPIC LAST UPDATED: APR 30, 2021.

- **PRENATAL OBSTETRICS**
- **SAFETY OF PENICILLIN SKIN TESTING AND CHALLENGE IN PREGNANCY (APRIL 2021)**

- PENICILLIN SKIN TESTING AND CHALLENGE HAS TYPICALLY BEEN AVOIDED DURING PREGNANCY UNLESS PENICILLIN TREATMENT IS CRITICAL (EG, PATIENTS WITH SYPHILIS), BUT NOW THERE IS GROWING INTEREST IN THE ROUTINE "DE-LABELING" OF PATIENTS WITH A HISTORY OF POSSIBLE PENICILLIN ALLERGY. IN THE LARGEST STUDY TO DATE OF TESTING DURING PREGNANCY, 222 PATIENTS WERE REFERRED BY OBSTETRICIANS FOR OUTPATIENT ALLERGY EVALUATION IF THEY HAD PENICILLIN REACTIONS THAT OCCURRED >5 YEARS AGO; EITHER WITH FEATURES OF IGE-MEDIATED ALLERGY OR UNCHARACTERIZED REACTIONS [1]. OVERALL, NO SERIOUS REACTIONS OCCURRED DURING TESTING AND CHALLENGE, AND 94 PERCENT OF THOSE TESTED HAD THE LABEL OF PENICILLIN ALLERGY REMOVED. THE AMERICAN COLLEGE OF OBSTETRICS AND GYNECOLOGY 2020 GUIDELINES FOR PREVENTION OF GROUP B STREPTOCOCCAL EARLY-ONSET DISEASE IN NEWBORNS ALSO SUPPORT REFERRAL AND PENICILLIN SKIN TESTING AS AN OPTION FOR MANAGEMENT OF PREGNANT PATIENTS WITH REPORTED PENICILLIN ALLERGY. (SEE "PENICILLIN SKIN TESTING", SECTION ON 'PREGNANCY'.)

WHAT'S NEW IN PEDIATRICS

THIS TOPIC LAST UPDATED: APR 19, 2021.

- **NEONATOLOGY**
- **DELAYED CORD CLAMPING VERSUS CORD MILKING IN PRETERM INFANTS (APRIL 2021)**
  - DELAYED CORD CLAMPING (DCC) FACILITATES THE PHYSIOLOGIC TRANSITION FROM FETAL TO NEWBORN LIFE, PARTICULARLY IN PRETERM INFANTS. CORD MILKING (CM) IS AN ALTERNATIVE, BUT A PREVIOUS META-ANALYSIS OF RANDOMIZED TRIALS FOUND THAT IT INCREASED THE RISK FOR SEVERE (GRADE 3 OR 4) INTRAVENTRICULAR HEMORRHAGE (IVH). HOWEVER, IN A NEW NETWORK META-ANALYSIS, DCC AND CM RESULTED IN SIMILAR ODDS OF SEVERE IVH AND OTHER NEONATAL OUTCOMES [3]. INTERPRETATION OF AVAILABLE DATA IS LIMITED BY DIFFERENCES IN HOW CM WAS PERFORMED AND THE GESTATIONAL AGE RANGE FOR PRETERM BIRTH AMONG TRIALS. ALTHOUGH, WHEN FEASIBLE, WE PREFER DCC TO CM, THESE DATA SUGGEST EQUIPOISE BETWEEN DCC AND CM IN PRETERM BIRTHS. CM SHOULD NOT INTERFERE WITH DELIVERY WHEN IMMEDIATE PEDIATRIC ASSISTANCE IS NEEDED (EG, NEONATAL DEPRESSION OR THICK MECONIUM) OR IF CORD BLOOD COLLECTION IS PLANNED. (SEE "MANAGEMENT OF NORMAL LABOR AND DELIVERY", SECTION ON 'CORD MILKING'.)

WHAT'S NEW IN PSYCHIATRY

THIS TOPIC LAST UPDATED: APR 30, 2021.

- **PEDIATRIC MOOD DISORDERS AND COMORBID CANNABIS USE DISORDER (APRIL 2021)**
- COMORBID CANNABIS USE DISORDER IS COMMON AMONG DEPRESSED YOUTHS AND APPEARS TO BE ASSOCIATED WITH INCREASED SELF-HARM AND MORTALITY. IN A RETROSPECTIVE STUDY INCLUDING >200,000 YOUTHS WHO HAD DEPRESSIVE OR OTHER MOOD DISORDERS AND WERE FOLLOWED FOR UP TO ONE YEAR, 10 PERCENT HAD A COMORBID CANNABIS USE DISORDER [3]. AFTER CONTROLLING FOR POTENTIAL CONFOUNDING FACTORS, COMORBID CANNABIS USE DISORDER WAS ASSOCIATED WITH AN INCREASED RISK FOR NONFATAL SELF-HARM AND FOR ALL-CAUSE MORTALITY (HAZARD RATIOS 3.3 AND 1.6, RESPECTIVELY). WE SUGGEST ASSESSING DEPRESSED PATIENTS FOR PSYCHIATRIC COMORBIDITIES (EG, SUBSTANCE USE, ANXIETY, AND DISRUPTIVE BEHAVIOR DISORDERS) AND INITIATING TREATMENT WHEN APPROPRIATE. (SEE "PEDIATRIC UNIPOLAR DEPRESSION: EPIDEMIOLOGY, CLINICAL FEATURES, ASSESSMENT, AND DIAGNOSIS", SECTION ON 'PSYCHIATRIC'.)

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WHAT'S NEW IN PULMONARY AND CRITICAL CARE MEDICINE

THIS TOPIC LAST UPDATED: APR 30, 2021.

- ## CRITICAL CARE

- ## WEANING FROM MECHANICAL VENTILATION IN THE ICU (APRIL 2021)

- FOR ICU PATIENTS ON MECHANICAL VENTILATION FOR LONGER THAN 24 HOURS, THERE IS NO STANDARD WEANING PRACTICE. A RECENT INTERNATIONAL STUDY OF 1868 MECHANICALLY VENTILATED PATIENTS IN 142 INTENSIVE CARE UNITS (ICUS) IN SIX GEOGRAPHIC REGIONS (CANADA, UNITED STATES, UNITED KINGDOM, EUROPE, INDIA, AUSTRALIA/NEW ZEALAND) BEST ILLUSTRATES THE VARIATION IN PRACTICE INCLUDING WIDE RANGES REPORTED IN WRITTEN DIRECTIVES TO SCREEN FOR A SPONTANEOUS BREATHING TRIAL (SBT; 5 TO 83 PERCENT) AS WELL AS THE PERFORMANCE OF AND MODE USED TO CONDUCT AN SBT [12]. ICUS IN THE UNITED STATES WERE ASSOCIATED WITH GREATER ODDS OF HAVING SBT DIRECTIVES AND USING AN SBT WITH LOW-LEVEL PRESSURE SUPPORT COMPARED WITH ICUS IN OTHER REGIONS. COMPARED WITH DIRECT EXTUBATION, INDIVIDUALS UNDERGOING SBT HAD HIGHER ICU MORTALITY (10 VERSUS 5 PERCENT), LONGER MEDIAN DURATION OF MECHANICAL VENTILATION (4 VERSUS 3 DAYS), AND LONGER MEDIAN LENGTH OF ICU STAY (11 VERSUS 8 DAYS) ALTHOUGH GREATER SEVERITY OF ILLNESS LIKELY EXPLAINS THESE RESULTS GIVEN PREVIOUS TRIALS DEMONSTRATING THAT SBT IS EFFICIENT, SAFE, AND EFFECTIVE. THE WIDE VARIATION IN WEANING PRACTICES HIGHLIGHTED IN THIS STUDY INDICATES THAT FURTHER RESEARCH IS NEEDED TO DETERMINE THE BEST APPROACH AND TO SUPPORT ITS WIDER IMPLEMENTATION. (SEE "INITIAL WEANING STRATEGY IN MECHANICALLY VENTILATED ADULTS", SECTION ON 'VARIATION IN PRACTICE'.)

WHAT'S NEW IN RHEUMATOLOGY

THIS TOPIC LAST UPDATED: APR 17, 2021.

- **SAFETY OF IMMUNOTHERAPY IN PATIENTS WITH AUTOIMMUNE DISEASE AND MELANOMA (APRIL 2021)**

- IN PATIENTS WITH AUTOIMMUNE DISEASE (AID) AND CANCER, LIMITED DATA SUGGEST THAT CHECKPOINT INHIBITOR IMMUNOTHERAPY IS ASSOCIATED WITH AN INCREASED RISK OF AID FLARES AND IMMUNE-RELATED ADVERSE EVENTS (IRAES). HOWEVER, IN A PROSPECTIVE COHORT STUDY WITH APPROXIMATELY 4400 PATIENTS WITH ADVANCED MELANOMA, INCLUDING 415 PATIENTS WITH AID, THE INCIDENCE OF SEVERE IRAES WAS SIMILAR IN PATIENTS WITH AND WITHOUT AID [3]. OF NOTE, PATIENTS WITH AID WERE MORE LIKELY TO DISCONTINUE IMMUNOTHERAPY OR EXPERIENCE SPECIFIC IRAES (EG, COLITIS IN THOSE WITH INFLAMMATORY BOWEL DISEASE). WHILE A MAJORITY OF PATIENTS WITH AID AND CANCER MAY SAFELY RECEIVE IMMUNOTHERAPY, CLINICIANS CONSIDERING CHECKPOINT INHIBITORS IN INDIVIDUALS WITH AID SHOULD PROVIDE THE PATIENT WITH A COMPLETE RISK-BENEFIT DISCUSSION, EVALUATE FOR CONTRAINDICATIONS THAT REQUIRE OTHER ONCOLOGIC THERAPIES, AND INVOLVE THE CLINICIAN TREATING THE AID. (SEE "TOXICITIES ASSOCIATED WITH CHECKPOINT INHIBITOR IMMUNOTHERAPY", SECTION ON 'PREEXISTING AUTOIMMUNE DISEASE'.)

WHAT'S NEW IN SURGERY

THIS TOPIC LAST UPDATED: APR 29, 2021.

- **10-YEAR RESULTS OF MEDICAL VERSUS SURGICAL TREATMENT OF PATIENTS WITH OBESITY AND TYPE 2 DIABETES (APRIL 2021)**

- ALTHOUGH BARIATRIC SURGERY IS AN EFFECTIVE TREATMENT FOR TYPE 2 DIABETES IN PATIENTS WITH OBESITY, ITS DURABILITY IS DEBATED. IN A 10-YEAR FOLLOW-UP OF A RANDOMIZED TRIAL COMPARING THREE TREATMENTS IN PATIENTS WITH TYPE 2 DIABETES AND BODY-MASS INDEX ≥35 KG/M^2, THE DIABETES REMISSION RATES FOR MEDICAL THERAPY, ROUX-EN-Y GASTRIC BYPASS (RYGB), AND BILIOPANCREATIC DIVERSION (BPD) WERE 5.5, 25, AND 50 PERCENT, RESPECTIVELY [3]. COMPARED WITH MEDICAL THERAPY, SURGERY WAS ASSOCIATED WITH FEWER DIABETES-RELATED COMPLICATIONS, ALTHOUGH BPD, BUT NOT RYGB, WAS ASSOCIATED WITH MORE SERIOUS ADVERSE EVENTS. (SEE "OUTCOMES OF BARIATRIC SURGERY", SECTION ON 'DURABILITY'.)

WHAT'S NEW IN SURGERY

THIS TOPIC LAST UPDATED: APR 29, 2021.

- **ENDOCRINE SURGERY**
- **SURGICAL TECHNIQUE AND HYPOCALCEMIA AFTER THYROIDECTOMY (APRIL 2021)**
- HYPOCALCEMIA DUE TO PARATHYROID GLAND ISCHEMIA IS A KNOWN COMPLICATION OF THYROID SURGERY. IN A RANDOMIZED TRIAL OF 319 PATIENTS UNDERGOING TOTAL THYROIDECTOMY, LIGATING BRANCHES OF THE INFERIOR THYROID ARTERY (ITA) ALONG THE THYROID CAPSULE RESULTED IN A LOWER RATE OF TRANSIENT HYPOCALCEMIA COMPARED WITH TRUNCAL ITA LIGATION (3 VERSUS 23 PERCENT) [13]. THESE FINDINGS SUPPORT USE OF THE BRANCH-LIGATION TECHNIQUE, WHICH IS THE PREFERRED TECHNIQUE OF ENDOCRINE SURGEONS IN THE UNITED STATES. (SEE "THYROIDECTOMY", SECTION ON 'DISSECTION OF THE THYROID GLAND'.)

WHAT'S NEW IN SURGERY

THIS TOPIC LAST UPDATED: APR 29, 2021.

- ## PERIOPERATIVE CARE

- ## TIMING OF ELECTIVE SURGERY AFTER COVID-19 DIAGNOSIS (APRIL 2021)

- PERIOPERATIVE MORBIDITY AND MORTALITY ARE INCREASED IN PATIENTS WITH COVID-19; THE OPTIMAL TIMING FOR ELECTIVE SURGERY AFTER CONTRACTING INFECTION IS UNCLEAR. IN AN INTERNATIONAL, PROSPECTIVE STUDY OF >140,000 PATIENTS UNDERGOING ELECTIVE OR EMERGENCY SURGERY IN OCTOBER 2020 (>3100 WITH PREOPERATIVE COVID-19), PATIENTS WITH COVID-19 WHO HAD SURGERY <7 WEEKS FROM THE DIAGNOSIS HAD A THREE- TO FOUR-FOLD INCREASE IN 30-DAY MORTALITY COMPARED WITH UNINFECTED PATIENTS [16]. MORTALITY RISK RETURNED TO BASELINE WHEN SURGERY WAS PERFORMED ≥7 WEEKS AFTER DIAGNOSIS, EXCEPT IN PATIENTS WITH ONGOING COVID-19 SYMPTOMS. IDEALLY, ELECTIVE SURGERY SHOULD BE DELAYED UNTIL THE PATIENT IS ASYMPTOMATIC AND HAS RECOVERED BASELINE CARDIOPULMONARY STATUS, WHILE TAKING INTO ACCOUNT THE RISKS OF DELAYING SURGERY. (SEE "COVID-19: ANESTHETIC CONCERNS, INCLUDING AIRWAY MANAGEMENT AND INFECTION CONTROL", SECTION ON 'RISK OF SURGERY WITH COVID-19'.)