

**Collected data for the systematic literature review
“Data Collection Variation in Preoperative Assessment”**

Technical report TR2008-01

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Introduction

This technical report contains collected data from a systematic review with the objective to identify data collected in the preoperative assessment. Extracted data from included articles in this review study is categorized into the 13 categories: demographic history detail; functional finding; ; procedure behavior finding; past history of clinical finding; laboratory test; diagnostic procedure; physical examination procedure; review of medication; preoperative evaluation, anesthesia; family history; patient status observation and administrative information.

Extracted preoperative assessment data from literature review

1. Demographic history detail

patient name
sex
age
social security number
assigned identification number
height
weight/BMI
right handed or left handed
occupation
habits
insurance coverage
cultural and ethnic assessment

2. Functional finding

Difficulty in communication

- difficulty in speaking
- difficulty in hearing
- dialect (language barrier)
- difficulty in eyesight

emotional assessment
socioeconomic assessment

Functional Finding

- ability to walk up one flight of stairs without stopping/ exercise tolerance
- ability to perform daily activities
- ability to lie flat for at least one hour
- prosthesis
- physical impairment

3. Procedure

purpose of the operation/ diagnosis
planned procedures
date and time of surgery
type of surgery(elective, emergency,..)
site and side of surgery
NPO status
surgeons
type of anesthesia
expected anesthesia duration
expected blood loss
risk of surgery/anesthesia

4. Behavior finding

cigarette smoking and use of tobacco
alcohol drinking
illicit drugs
signs of abuse and neglect

5. Past history of clinical finding

chief complaint
present illness
severity and stability of the conditions
general health status
prior treatment for the problem

past hospitalizations

- when
- transfer to ICU/being in ICU
- nosocomial status

endocrine diseases

- thyroid diseases
- diabetes
- prostate disease
- adrenal suppression/insufficiency
- Cushing's syndrome
- Addison's disease
- hyper/hyperparathyroidism
- hypoglycemia (low blood sugar)

GI diseases

- stomach problem
- abdominal mass
- constipation
- visceromegaly
- (hiatal) hernia
- peptic ulcer
- indigestion
- bowel problem
- emesis
- anorexia
- nausea
- motion sickness
- capped or loose teeth
- gastrointestinal reflex disease

liver diseases

- cirrhosis
- hepatitis
- jaundice
- alcohol/drug induced hepatic disease
- hepatic failure
- gallbladder or biliary tract disease
- abnormal liver function test

renal diseases

- kidney diseases
- bladder diseases
- cystitis
- infection
- stones
- failure
- polyuria/oliguria/anuria/ hematurai
- hyper uremic
- dialysis
- renal transplant

cardiovascular diseases

- coronary artery disease
- myocardial infarction
- hypertension/high blood pressure

- hypotention
- peripheral vascular disease
- vascular heart disease
- cerebral vascular disease
- chest pain or angina
- heart attack
- abnormal EKG
- heart murmur
- palpitation/ irregular heartbeat
- arrhythmias
- deep venous thrombosis
- venous thromboembolism
- phlebitis
- (congestive) heart failure/disease
- ischemic heart disease
- congenital heart diseases
- shock/ syncope
- valvular heart disease
 - stenosis
 - aortic or mitral regurgitation
 - (chronic) atrial fibrillation
 - aortic aneurysm
 - artificial heart valve
- cardiomegaly
- cor pulmonale
- dextrocardia
- systolic and diastolic ventricular dysfunction
- use of pacemaker

blood disorders

- anemia
- polycythemia
- leukemia
- sickle cell disease
- clotting disorder or bleeding/ coagulation disorder
- transfusions
 - date
 - reactions or problems related to transfusion
- intravascular hemolysis
- vitamin B12 deficiency

pulmonary diseases

- COPD
 - airway obstruction
 - respiratory tract infection
 - lung disease
 - respiratory failure
 - shortness of breath (dyspnea)
 - dyspnea on exertion
 - paroxysmal nocturnal dyspnea
- emphysema
- bronchitis
- asthma
- abnormal chest X-ray
- chronic cough
- pneumonia
- atelectasis
- mediastinal or pulmonary masses
- trachea deviation
- pulmonary edema

psychiatric diseases

- dementia
- cognitive decline
- delirium

neurological diseases

- central nervous system diseases
- CNS tumor
- spinal cord injury disease
- (peripheral) neuropathy
- stroke
- transient ischemic attack
- seizures
- epilepsy or fits
- multiple sclerosis
- Parkinson's disease
- dizziness
- migraines
- confusion
- convulsion
- blackout/ consciousness
- brain vascular disorders/aneurysms
- Increased ICP(intracranial pressure)
- use of brain stimulators
- chronic pain
- movement disease
- tremor

musculoskeletal diseases

- myopathy
- Myasthenia gravis
- kyphoscoliosis
- scoliosis
- muscle weakness/disease
- leg weakness
- arm weakness
- neck problems
- back problems
- pain and stiffness in jaw
- arthritis (rheumatoid)
- osteoporosis
- systematic lupus erythematosus
- spondyloarthropathies
- broken bones
- bone diseases
- dystrophy
- artificial joint

allergies

- allergies to medications
- allergies to latex
- allergies to food
- allergy to cleansers
- allergy to adhesive or taped dressings
- other allergies
- kind of reactions

malignancy

- chemotherapy
- radiotherapy

infections

- sepsis
- HIV
- TB

- HSV (herpes simplex virus)
- prolonged antibiotic therapy
- carrier of contagious diseases
- rheumatic fever

metabolic diseases

- electrolyte acid-base imbalanced
- gout
- dehydration
- increased fluid overload/ fluid imbalance
- hyperlipidemia
- acute porphyria

autoimmune disease

- immunosuppression

Other conditions

- edema
- fatigue
- skin condition
- glaucoma
- ascites
- malnutrition
- connective tissue disorders
- down syndrome
- organ transplantation
- swollen ankle

surgical history

previous operations

- approximate dates of previous operations
- nose surgery
- neck surgery
- throat surgery
- history of high risk surgeries
- history of emergency surgeries
- prolonged surgical procedure
- CABG
- revascularization
- pneumonectomy
- thyroidectomy

surgical-related complications

6. Laboratory test

- **hematology tests**
- CBC
- WBC
- lymphocytes
- hemoglobin
- hematocrit
- MCH (mean corpuscular hemorrhage)
- MCV (mean corpuscular volume)
- MCHC (mean corpuscular hemoglobin concentration)
- mean platelet volume
- chemistry profile
- pregnancy test or β -HCG
- coagulation profiles
 - platelets
 - PT
 - PTT
 - thrombin
- fibrinogen test
- bleed time
- thyroid tests
- liver function tests
 - transaminase (AST/ALT)
 - ALP(alkaline phosphatase)
 - bilirubin
- CPK (creatine phosphokinase)
- lactic dehydrogenase
- factors for likelihood of a blood transfusion
- ABG (arterial blood gases)
- electrolytes
 - Mg
 - Ca
 - PO4
 - K
 - Na
 - chloride
 - carbon dioxide
- hormone level
- HIV
- cholesterol
- drug levels
- toxicology tests
- **renal function test**
 - renal clearance time
 - BUN
 - creatinine
 - urinalysis
- urine culture
- albumine
- protein
- glucose
- other test

7. Diagnostic Procedure

- electrocardiogram
- echocardiogram
- cardiac stress test
- pulmonary function test
- chest X ray
- other radiological tests
- sonography
- carotid duplex ultrasound

8. Physical examination procedure

abnormal findings

vital signs

- blood pressure
- pulse rate
- JVP
- respiratory rate
- temperature
- oxygen saturation

respiratory examination

- auscultation of the lung
 - wheezing
 - breath sounds
- cyanosis
- clubbing
- effort of breathing
- thoracic inspection
- palpation
- percussion

chest diameter

cardiovascular examination

- auscultation of the heart
 - murmurs
 - thrills or gallops
 - rhythm disturbances
 - volume overload
 - carotid bruit
 - s3
- palpitation or irregular of the pulses
- orthostatic hypotension
- peripheral circulation
- precordial inspection
- palpation
- percussion
- venous thromboembolism risk

renal examination

gastrointestinal examination

- abdominal examination
 - percussion
 - inspection
 - auscultation
 - palpation
- liver evaluation
- bowel routine
- risk for ileus and constipation
- gum abscesses

psychological examination

- cognition examination
 - determining fear and anxiety

neurological examination

- Alert, oriented, cooperative and awake
- central nervous system
- sensory examination
 - loss of hearing
 - loss of vision
 - loss of taste

musculoskeletal examination

- mobility status
- -range of motion in the neck, head, vertebrae, shoulders
- rheumatologic evaluation
- integument examination**
- existing tearing or shearing
- oxygenation and hydration
- endocrine evaluation**
- metabolic conditions**
- hematologic evaluation**
- petechiae
- extremities examination**
- Other physical examination**
- inspection for edema
- organomegaly
- visual examination of the planned incision site
- active infection
- nutritional assessment
- palpable masses
- eyelid closure

9. Review of medication

dose and how often use of medications

anticoagulant medications

- clopidogrel
- warfarin
- heparin

over-the-counter medications

- aspirin-containing medications
- nonsteroidal anti-inflammatory medications (NSAIDs)

herbal medications

- ginkgo biloba
- ginseng
- garlic
- St Johan's wort
- saw palmetto
- kava
- echinacea
- valerian
- ephedra

health/dietary supplements

- vitamin E
- fish oil

steroids and retinoid compounds

- isotretinoin
- corticosteroid
- prednisone

bronchodilators

- Theophylline
- inhalers
- asthma drugs
- metered dose inhalers

cardiovascular drugs

- antihypertensive
- antiarrhythmic
- antianginal
- cardiac glycosides
- beta blocking agents
- ACE inhibitor
- HMG CoA reduction
- gemfibrozil
- digoxin(digitalis)
- diuretics
- dipyridamole

diabetic medication

- hypoglysemic agents
- metformin
- chlorpropamide
- insulin

immunosuppressive agents

- glucocorticoids
- antineoplastic

endocrine drugs

- thyroid replacement
- estrogen

antianxiety

- monoamine oxidase inhibitors
- antidepressants

gastrointestinal drugs
drugs affected renal function
anticonvulsant/anti-epileptic
antiparkinson
sedative
narcotics/opioids
hypnotics
antibiotics
(postoperative) analgesia
psychotropes
potassium supplement
contraceptive
non prescription medications
drug averse effect
recreational drugs
contraindication to NSAIDs

10. Preoperative evaluation, anaesthesia

anaesthesia history

- anaesthesia-related problem or complications
 - malignant hyperthermia
 - poorly controlled pain
 - persistent nausea and vomiting

airway examination

- Mallampati classification
- measurement of thyromental distance
- measurement of sternum-mental distance
- mouth opening
- tongue size
- narse examination
- mandibular space
- craniofacial abnormalities
- maxillofacial and airway trauma
- airway tumors, abscesses and soft tissue enlargement
- teeth and oropharynx examination

risk factors for difficult intubation

risk of aspiration

past history of difficult intubation

obesity

sleep apnea or snoring

need for post operative mechanical ventilation

potential for an adverse reaction to anaesthesia

ASA class

anaesthesia team/ name of anaesthetist and performer of intubation

anaesthesia duration

monitors

pain assessment

hypothermia assessment

hyperthermia assessment

11. Family history

surgical-related complications

anesthesia- related problems

- malignant hyperthermia
- pseudocholinesterase deficiency
- allergy to succinylcholine
- postoperative nausea or vomiting
- bleeding disorders
- heart diseases

12. Patient status observation

do you need to take antibiotics before dental cleaning

pregnancy

- LMP

are your menstrual periods regular

birth control method

do you have your period

are you wearing a tampon

current menstrual cycle status

exposure to measles, mumps, chicken pox, or TB

are you ill now or were you recently ill with:

- cold
- chills
- flu
- (productive) cough
- fever
- acute tonsillitis
- gingivitis
- vomiting and diarrhea
- weight loss

visiting primary care doctor recently

co morbidities

do you have sensitive skin

blood donor

immunization status

13. Administrative information

family/ other support after surgery/ during hospitalization
information about how to contact with family's patient after surgery
documenting patient or family questions and concerns
accompanied to hospital by
information obtained from
date of assessment
number of days in hospital before surgery
delays due to requests for additional tests
name of referring doctor
possibility for transfer to ICU
additional consultations
admitted to
transfer from...
cardiologist
have you been in this hospital
physical environment of patient home (stairs, throw rugs, bathroom)
determining that patient or its family understand the proposed procedure
Informed consent
competency of patient before informed consent
written permission to leave postoperative follow- up