Reporting Protocol for the Examination of Gross Autopsy of Adult Decedents

Version: autopsy-adult-20.02
Protocol Posting Date: February 2020

Accreditation Requirements
The use of this protocol is recommended for autopsy but is not required for accreditation purposes.

This protocol may be used for the following procedures:

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autopsy</td>
<td>Includes routine autopsy for adult decedents</td>
</tr>
</tbody>
</table>

The following should NOT be reported using this protocol:

<table>
<thead>
<tr>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forensic autopsy</td>
</tr>
<tr>
<td>Pediatric autopsy</td>
</tr>
</tbody>
</table>

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With guidance from the CAP Autopsy and Neuropathology Committees.

* Denotes primary author. All other contributing authors are listed alphabetically.

Summary of Changes
20.02 – New autopsy reporting protocol
Reporting Template

Notes: This case summary may be useful for reporting autopsy findings but is not required for accreditation purposes. (NOTE A)

PATIENT IDENTIFICATION AND CONSENT FOR AUTOPSY

Patient name: ______________________

Consent and patient ID reviewed by
Dr. ______________________
Mr./Ms. ______________________

Two unique patient identifiers reviewed
Patient name: ______________________
Date of birth: ______________________
MRN: ______________________
Other: ______________________

___ Type of autopsy
___ Complete
___ Brain only
___ No head
___ Chest only
___ Abdomen only
___ Other: ______________________

Name of consenter: ______________________

Relationship to the deceased: ______________________

PRIOR POSTMORTEM PROCEDURES

___ Organ Donation (select all that apply)
___ Corneas
___ Skin
___ Bone and soft tissue (specify): ______________________
___ Organs (specify): ______________________
___ Other (specify): ______________________

___ Funerary Preparation (select all that apply)
___ Eye caps
___ Jaws wired or sewn closed
___ Evidence of embalming (specify): ______________________
___ Other (specify): ______________________

+ Data elements preceded by this symbol may be of value but are not necessarily routinely reported.
EXTERNAL APPEARANCE

___ General
   ___ Well-developed
   ___ Other (specify): ____________________

___ Age: _________

___ Race
   ___ Caucasian
   ___ African American
   ___ Hispanic
   ___ Asian
   ___ Other (specify): ____________________

___ Sex
   ___ Male
   ___ Female
   ___ Other (specify): ____________________

Body Weight (kilograms) _____kg

Body Length (centimeters) _____cm

BMI ______
*Note: use formula weight (kg)/ [height (m)]^2*

___ Personal effect with or on the body
   ___ No
   ___ Yes (specify): ____________________

___ Toes / fingernails:
   ___ Unremarkable
   ___ Onychomycosis
   ___ Koilonychia
   ___ Splinter hemorrhages
   ___ Cyanotic
   ___ Other (specify): ____________________

___ Skin
   ___ Unremarkable
   ___ Other (specify): ____________________

___ Palpable lymph nodes
   ___ No
   ___ Yes
      ___ Neck
      ___ Axilla
      ___ Groin
      ___ Other (specify): ____________________

___ Hair
   ___ None
   ___ Balding
   ___ Short
   ___ Long

+ Data elements preceded by this symbol may be of value but are not necessarily routinely reported.
___ Other (specify): ____________________

___ Hair color
  ___ Black
  ___ Brown
  ___ Blond
  ___ Grey
  ___ Other (specify): ____________________

___ Eye color
  ___ Brown
  ___ Blue
  ___ Hazel
  ___ Green
  ___ Other (specify): ____________________

Pupil measurement- right (centimeters): ________ cm

Pupil measurement- left (centimeters): ________ cm

___ Sclerae
  ___ Anicteric
  ___ Icteric
  ___ Other (specify): ____________________

___ Ears
  ___ Unremarkable
  ___ Other (specify): ____________________

___ Nose
  ___ Unremarkable
  ___ Other (specify): ____________________

___ Oral cavity
  ___ Good dentition
  ___ Poor dentition
  ___ Dentures
  ___ No teeth
  ___ Exam not performed due to rigor
  ___ Other (specify): ____________________

___ External genitalia
  ___ Normal male
  ___ Normal female
  ___ Other (specify): ____________________

___ Leg circumference 10 cm from medial malleolus
  ___ Right (centimeters): ________ cm
  ___ Left (centimeters): ________ cm

___ Edema
  ___ None
  ___ Peripheral
  ___ Generalized
  ___ Other (specify): ____________________

+ Data elements preceded by this symbol may be of value but are not necessarily routinely reported.
**__Scars/ Incisions__**
- None
- Present (specify): ____________________
  - Location (specify): ___________
  - Size (centimeters): ____ cm

**__Evidence of therapy__**
- None
- Nasogastric tube
- PEG tube
- Endotracheal tube
- Foley catheter
- Other (specify): ____________________

**__Back__**
- Unremarkable
- Other (specify): ____________________

**INCISIONS AND BODY CAVITIES**

**__Incision__**
- Standard Y-shaped
- Biparietal
- Other (specify): ____________________

**__Organs in normal anatomic positions__**
- Yes
- No
- Other (specify): ____________________

+ Panniculus (centimeters measured at thickest area): ________ cm

**__Peritoneal fluid__**
- None
- Present (milliliters): ____________ ml
  - Serous
  - Cloudy
  - Serosanguinous
  - Sanguinous
  - Other (specify): ____________________

**__Peritoneal surfaces__**
- Smooth
- Adhesions
- Other (specify): ____________________

**__Right pleural cavity__**
- Smooth
- Adhesions
- Other (specify): ____________________
__ Right pleural fluid
___ None
___ Present (milliliters): __________ ml
   ___ Serous
   ___ Serosanguinous
   ___ Sanguinous
   ___ Other (specify): ____________________

__ Left pleural cavity
___ Smooth
___ Adhesions
___ Other (specify): ____________________

__ Left pleural fluid
___ None
___ Present (milliliters): __________ ml
   ___ Serous
   ___ Serosanguinous
   ___ Sanguinous
   ___ Other (specify): ____________________

CARDIOVASCULAR SYSTEM

__ Heart weight
___ (grams): _________ g
   Note: see reference table by patient weight

__ Pericardium
___ Intact
___ Adhesions
___ No adhesions
___ Other (specify): ____________________

__ Pericardial fluid
___ None
___ Present (milliliters): __________ ml
   ___ Serous
   ___ Sanguinous
   ___ Other (specify): ____________________

+ ___ Epicardial fat
  + ___ Minimal
  + ___ Moderate
  + ___ Large amount
  + ___ Other (specify): ____________________

__ Epicardial surface
___ Smooth
___ Glistening
___ Roughened
___ Other (specify): ____________________

+  Data elements preceded by this symbol may be of value but are not necessarily routinely reported.
___ Coronary ostia
   ___ Normally positioned
   ___ Patent
   ___ Other (specify): ____________________

___ Foramen ovale
   ___ Closed
   ___ Probe patent
   ___ Other (specify): ____________________

___ Coronary arteries follow normal anatomic course
   ___ Yes
   ___ No
   ___ Other (specify): ____________________

___ Coronary circulation
   ___ Right dominant
   ___ Left dominant
   ___ Co- dominant

Atherosclerosis
___ Left anterior descending artery (LAD)
   ___ None
   ___ % stenosis: __________
   ___ Eccentric
   ___ Concentric
   ___ Other (specify): ____________________

___ Left circumflex artery (LCX)
   ___ None
   ___ % stenosis: __________
   ___ Eccentric
   ___ Concentric
   ___ Other (specify): ____________________

___ Right coronary artery (RCA)
   ___ None
   ___ % stenosis: __________
   ___ Eccentric
   ___ Concentric
   ___ Other (specify): ____________________

___ Chamber dilation
   ___ Yes
   ___ No
   ___ Other (specify): ____________________

___ Valve leaflets
   ___ Thin/ delicate
   ___ Other (specify): ____________________

___ Chordae tendinae
   ___ Thin
   ___ Other (specify): ____________________
+ Valve circumferences
  + Tricuspid (centimeters): ________ cm
    Abnormalities (specify): ____________________________
    Note: Reference range 10.0 – 12.5 cm
  + Pulmonic (centimeters): ________ cm
    Abnormalities (specify): ____________________________
    Note: Reference range 7.0 – 9.0 cm
  + Mitral (centimeters): ________ cm
    Abnormalities (specify): ____________________________
    Note: Reference range 8.0 – 10.5 cm
  + Aortic (centimeters): ________ cm
    Abnormalities (specify): ____________________________
    Note: Reference range 6.0 – 7.5 cm

___ Myocardium
___ Firm
___ Red-brown
___ Other (specify): ____________________________

___ Endocardium
___ Smooth and thin
___ Thickened
___ Other (specify): ____________________________

Left ventricular free wall (centimeters): ________ cm
Note: Reference range less than 1.5 cm

Right ventricular free wall (centimeters): ________ cm
Note: Reference range less than 0.5 cm

Septum (centimeters): ________ cm
Note: Reference range less than 1.5 cm

___ Pulmonary artery
___ Appropriate caliber
___ Normal configuration
___ Contains embolus
___ Other (specify): ____________________________

___ Ascending aorta
___ Appropriate caliber
___ Normal configuration
___ Other (specify): ____________________________

___ Major arteries arising from aortic arch
___ Normal configuration
___ Patent
___ Other (specify): ____________________________

+ Data elements preceded by this symbol may be of value but are not necessarily routinely reported.
__ Thoracic aorta
   ___ No atherosclerosis
   ___ Mild atherosclerosis
   ___ Moderate atherosclerosis
   ___ Severe atherosclerosis

__ Abdominal aorta
   ___ No atherosclerosis
   ___ Mild atherosclerosis
   ___ Moderate atherosclerosis
   ___ Severe atherosclerosis

__ Venae cavae
   ___ Patent
   ___ Thin- walled
   ___ Thrombi present
   ___ Other (specify): ____________________

**RESPIRATORY SYSTEM**

__ Epiglottis, larynx, trachea
   ___ No lesions
   ___ Other (specify): ____________________

Right lung weight (grams): _________ g
*Note: Reference range 360 – 570 g*

Left lung weight (grams): _________ g
*Note: Reference range 325 – 480 g*

__ Fixation
   ___ Fixed in distension
   ___ Cut fresh
   ___ Other (specify): ____________________

__ Right lung parenchyma
   ___ Soft and pale red
   ___ Other (specify): ____________________

__ Left lung parenchyma
   ___ Soft and pale red
   ___ Other (specify): ____________________

__ Bronchi
   ___ Patent
   ___ Other (specify): ____________________

__ Bronchial mucosa
   ___ No lesions
   ___ Other (specify): ____________________

+ Data elements preceded by this symbol may be of value but are not necessarily routinely reported.
___ Pulmonary arteries
   ___ No atherosclerosis
   ___ Atherosclerosis
   ___ Pulmonary emboli (specify size and location)
   ___ No pulmonary emboli
   ___ Other (specify): ____________________

DIGESTIVE SYSTEM

+ ___ Tongue
   + ___ Papillated
   + ___ Smooth
   + ___ Other (specify): ____________________

___ Esophagus
   ___ Normal anatomic configuration
   ___ Other (specify): ____________________

___ Esophageal mucosa
   ___ White
   ___ Intact
   ___ Other (specify): ____________________

___ Squamocolumnar junction
   ___ Sharply defined
   ___ Indistinct
   ___ Other (specify): ____________________

___ Stomach
   ___ Empty
   ___ Distended
   ___ Contains partially digested food and liquids
   ___ Other (specify): ____________________

___ Gastric mucosa
   ___ Intact, rugated
   ___ Other (specify): ____________________

___ Appendix
   ___ Present
   ___ Surgically absent
   ___ Other (specify): ____________________

___ Small bowel
   ___ Usual caliber
   ___ Dilated
   ___ Strictures
   ___ Other (specify): ____________________

___ Small bowel serosa
   ___ Tan pink shiny
   ___ Adhesions
   ___ Other (specify): ____________________

+ Data elements preceded by this symbol may be of value but are not necessarily routinely reported.
**Small bowel contents (specify):** ____________________

___ Small bowel mucosa
   ___ Tan
   ___ No lesions
   ___ Other (specify): ____________________

___ Large bowel
   ___ Usual caliber
   ___ Dilated
   ___ Stricture
   ___ Other (specify): ____________________

___ Large bowel serosa
   ___ Tan pink shiny
   ___ Adhesions
   ___ Other (specify): ____________________

**Large bowel contents (specify):** ____________________

___ Large bowel mucosa
   ___ Tan
   ___ No lesions
   ___ Polyp
   ___ Diverticula
   ___ Other (specify): ____________________

+ ___ Superior mesenteric artery
   + ___ No atherosclerosis
   + ___ Degree of atherosclerosis (specify): ____________________
   + ___ Other (specify): ____________________

**Liver weight (grams):** _________ g

*Note: Reference range 1500 – 1800 g*

___ Liver capsule
   ___ Smooth
   ___ Glistening
   ___ Intact
   ___ Other (specify): ____________________

___ Liver parenchyma
   ___ Slightly firm
   ___ Firm
   ___ Soft
   ___ Maroon-brown
   ___ Green tinged
   ___ Yellow orange
   ___ Rusty brown
   ___ Mottled red
   ___ Nodular
   ___ No focal lesions
   ___ Other (specify): ____________________
___ Gallbladder
    ___ Present
    ___ Surgically absent
    ___ Other (specify): ____________________

___ Gallbladder wall
    ___ Thin
    ___ Fibrous
    ___ Other (specify): ____________________

___ Gallbladder mucosa
    ___ Velvety
    ___ Green
    ___ Other (specify): ____________________

___ Gallbladder contents
    ___ Dark green mucoid bile
    ___ No calculi
    ___ Calculi
    ___ Other (specify): ____________________

___ Extrahepatic biliary system
    ___ Patent
    ___ Other (specify): ____________________

___ Portal vein
    ___ Patent
    ___ Other (specify): ____________________

___ Hepatic arteries
    ___ Patent
    ___ Other (specify): ____________________

___ Hepatic veins
    ___ Patent
    ___ Other (specify): ____________________

Pancreas dimensions (centimeters): ____ cm x ____ cm x ____ cm
Note: Average 23.0 x 4.5 x 3.8 cm

___ Pancreatic parenchyma
    ___ Tan
    ___ Firm and lobulated
    ___ Autolyzed
    ___ Other (specify): ____________________

___ Pancreatic duct
    ___ Patent
    ___ Not probe patent
    ___ Other (specify): ____________________
### URINARY TRACT

*Note: Average combined kidney weight 230-440 g*

Right kidney weight (grams): ________ g

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**Right kidney cortex**
- Thickness (centimeters): ____ cm
- Smooth
- Granular
- Scarred
- Other (specify): ____________________

**Right kidney parenchyma**
- Red-brown
- Clearly demarcated corticomedullary junctions
- Ill-defined corticomedullary junctions
- Other (specify): ____________________

**Right ureter**
- Patent
- Not patent
- Dilated
- Not dilated
- Other (specify): ____________________

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Left kidney weight (grams): ________ g

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**Left kidney cortex**
- Thickness (centimeters): ____ cm
- Smooth
- Granular
- Scarred
- Other (specify): ____________________

**Left kidney parenchyma**
- Red-brown
- Clearly demarcated corticomedullary junctions
- Ill-defined corticomedullary junctions
- Other (specify): ____________________

**Left ureter**
- Patent
- Not patent
- Dilated
- Not dilated
- Other (specify): ____________________

**Renal arteries**
- Patent
- No atherosclerosis
- Mild atherosclerosis
- Moderate atherosclerosis
- Severe atherosclerosis

+ Data elements preceded by this symbol may be of value but are not necessarily routinely reported.
___ Bladder
  ____ Collapsed
  ____ Volume of urine (milliliters): _________ ml

___ Bladder mucosa
  ____ Intact
  ____ Other (specify): ______________________

MALE REPRODUCTIVE TRACT (if appropriate)

___ Prostate
  ____ Normal size
  ____ Enlarged
  ____ Nodular
  ____ Size (centimeters): ____ cm x ____ cm x ____ cm
  ____ Other (specify): ______________________

___ Testes
  ____ Normal size
  ____ Enlarged
  ____ Other (specify): ______________________

___ Testes cut surface
  ____ Brown parenchyma
  ____ Tubules string in normal manner
  ____ Tubules do not string
  ____ Other (specify): ______________________

FEMALE REPRODUCTIVE TRACT (if appropriate)

___ Uterus
  ____ Present and appropriate size
  ____ Present (comment): ______________________
  ____ Surgically absent

___ Right Ovary
  ____ Size (centimeters): ____ cm x ____ cm x ____ cm
  ____ Not identified
  ____ Other (specify): ______________________

___ Left Ovary
  ____ Size (centimeters): ____ cm x ____ cm x ____ cm
  ____ Not identified
  ____ Other (specify): ______________________

___ Endometrium
  ____ Pale
  ____ Red
  ____ Other (specify): ______________________

___ Vagina
  ____ Without lesions
  ____ Other (specify): ______________________

+  Data elements preceded by this symbol may be of value but are not necessarily routinely reported.
___ Cervix
    ___ Without lesions
    ___ Other (specify): ____________________

ENDOCRINE SYSTEM

Right adrenal weight (grams): __________ g
Note: Average weight 6 g (trimmed)

Left adrenal weight (grams): __________ g
Note: Average weight 6 g (trimmed)

___ Adrenal parenchyma
    ___ Uniform yellow cortices
    ___ Good demarcation from the medullae
    ___ Autolyzed
    ___ Other (specify): ____________________

___ Thyroid
    ___ Weight (grams): __________ g
    ___ Symmetrical
    ___ Red-brown
    ___ Firm
    ___ Nodular
    ___ Other (specify): ____________________
    Note: Average weight 30 – 70 g

___ Breast tissue contains small amount of white fibrous tissue within yellow fat
    ___ Other (specify): ____________________

LYMPHORETICULAR SYSTEM

Spleen weight (grams): __________ g
Note: Average weight 150 – 200 g unless over 80-years-old, then average 100 g

___ Spleen capsule
    ___ Smooth
    ___ Intact
    ___ Other (specify): ____________________

___ Spleen parenchyma
    ___ Dark red
    ___ Other (specify): ____________________

___ Bone marrow
    ___ Dark red
    ___ Hard
    ___ Softer than usual
    ___ Other (specify): ____________________

___ Lymph nodes
    ___ Not enlarged
    ___ Other (specify): ____________________

+ Data elements preceded by this symbol may be of value but are not necessarily routinely reported.
Thymus
___ Not identified
___ Age appropriate fatty replacement
___ Present (weigh)
___ Other

MUSCULOSKELETAL SYSTEM

Diaphragm
___ Intact
___ Other (specify): ____________________

Skeletal muscles
___ Red-brown and firm
___ Appropriate mass for age/ gender
___ Other (specify): ____________________

Calvarium
___ Intact
___ Normal thickness
___ Other (specify): ____________________

Vertebral column
___ Normal curvature
___ Kyphosis
___ Scoliosis
___ Other (specify): ____________________

Ribs
___ Fractures (specify): ____________________
___ No fractures
___ Other (specify): ____________________

Vertebral bodies
___ No fractures
___ Other (specify): ____________________

CENTRAL NERVOUS SYSTEM

Gross brain observations at time of autopsy. Post-fixation brain cutting observations and tissue sampling will be considered in separate protocol (under development)

Brain weight (grams): _______ g
Note: Average weight 1100 – 1600 g

Dura
___ No lesions
___ Epidural hemorrhage
___ Subdural hemorrhage
___ Removal reveals no bony abnormalities
___ Other (specify): ____________________

Leptomeninges
___ No lesions
___ Subarachnoid hemorrhage

+ Data elements preceded by this symbol may be of value but are not necessarily routinely reported.
___ Opacity or discoloration
___ Other (specify): ____________________

___ Cerebral hemispheres
___ No lesions
___ Asymmetric (specify): ____________________
___ Atrophy (specify: diffuse, focal, lobar): ____________________
___ Edema (specify: diffuse, focal): ____________________
___ Other (specify): ____________________

___ Base of brain
___ No lesions
___ Uncal herniation

___ Circle of Willis
___ Normal
___ Atherosclerosis (specify location and severity): ____________________
___ Aneurysm (specify location and type): ____________________

* Note: If a ruptured aneurysm is suspected clinically and hemorrhage is present at the base of the brain, it is advisable to wash away the blood and conduct a thorough search for the aneurysm before fixation of the brain.
___ Other (specify): ____________________

___ Cerebellum
___ No lesions
___ Tonsillar herniation
___ Other (specify): ____________________

___ Brainstem
___ No lesions
___ Other (specify): ____________________

___ Spinal cord
___ Length (cm from cut superior to conus): __________ cm
___ No lesions
___ Other (specify): ____________________
___ Not submitted

___ Pituitary
___ No lesions
___ Other (specify): ____________________

+ ___ Eyes
+ ___ Submitted
+ ___ Not submitted
+ ___ Other (specify): ____________________

AUTOPSY PROCEDURES AND ANCILLARY TESTING

___ Approach to autopsy dissection
___ Rokitansky
___ Virchow
___ Other (specify): ____________________

___ Special dissection
___ None
___ Other (specify): ____________________

___ Tissue retention
___ Stock jar
___ All organs (until signout)
___ Other (specify): ____________________

___ Additional samples taken
___ Blood (specify): ____________________
___ Vitreous
___ Tissue (specify): ____________________
___ Other (specify): ____________________

___ Ancillary testing
___ None
___ Radiology (specify): ____________________
___ Blood cultures (specify): ____________________
___ Tissue cultures (specify): ____________________
___ Toxicology (specify): ____________________
___ Other (specify): ____________________

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Explanatory Notes

A. Introduction
The aim of this protocol is to improve the completeness, clarity, and portability of autopsy reporting, while being mindful of the wide range of practice settings in which the data in the report is generated and disseminated. Autopsy reporting has traditionally been entirely in prose, a methodology which complicates real time dictation in many cases, and which does not make data easily retrievable, particularly across institutions.

The protocol is based upon input from past and present members of the CAP Autopsy Committee, CAP Neuropathology Committee, and input from Katie Flickinger, MS, PA(ASCP)CM as well as the references below.

The construction of this protocol does allow for the insertion of sentences where desired and thus combines the best of templating and traditional description. It is recommended that it be used as a paper copy or electronic tool directly in the autopsy suite while a case is being completed, though its use can be adapted as needed at different centers and depending on the information technology environment. Portions of the template may also be used in limited autopsies. Though this template represents the Autopsy Committee’s recommendations for inclusion in an autopsy report, some sections with a plus sign “+” are considered more readily optional in practice and could be omitted.

Not only will the template provide more easily reproducible and extractable data, it may be used as a guide for trainees and pathologists who may only perform a limited number of autopsies in their practice. The committee hopes this is a first step in providing a general framework for more standardized quality autopsy practice.

The content of the protocol represents the consensus opinion of the CAP Autopsy Committee. It was ordered by organ system rather than order of the block dissection in recognition of variations in dissection practices across institutions as well as to create the most intelligible final report. Recognizing that the order of elements may be adjusted by users, it is the Committee’s recommendation that all elements be included in the Gross Description. Microscopic sampling can also be institution dependent, but the Committee recommends broad histologic evaluation for autopsies.

References