

## Urinalysis and Body Fluids CP9

Unit 1 C

Overview of Body Fluid Analysis

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## Overview of Body Fluid Analysis

- Urine is the most routinely tested body fluid.
- Other body fluids are tested only when a pathology is suspected.
  - Volume of BF (other than urine & CSF) are usually too low to obtain sample.
- Exams: physical, chemical & morphological

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## Overview of Body Fluid Analysis

- Routine testing should take only a few hours at most.
  - These fluids deteriorate quickly
  - Results often needed asap to begin therapy.

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## Laboratory Responsibilities

- Provide accurate & timely results
  - Immediate notification of any results deemed "critical or life threatening. (These are often referred to as "Panic Values")
    - Warrant a phone call to appropriate area and person
    - Be sure to clearly identify yourself, identify the patient, and state the results
    - Be sure to note or document the date, time, person's name (and position) whom you phoned the results.
  - The written results should then be sent ASAP.

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## Laboratory Responsibilities

- Other Laboratory responsibilities
  - Serve as a source of information
    - Laboratory operation hours
    - Test normal / reference values
    - Reliability of test results
    - The effects of medications or treatments
    - Proper specimen collection
    - Special handling requirements
      - chill, protect from light, etc.
    - Turn around Times (TAT) for tests

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## Examination of Body Fluids

- Laboratory departments involved in Body Fluid testing
  - Hematology
  - Clinical chemistry
  - Microbiology
  - Cytology / Pathology

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## Examination of Body Fluids

- Hematology
- Physical characteristics
  - color / appearance
  - clarity / transparency
  - volume, etc.
- Morphological elements
  - Structures seen under the microscope
    - Cells
    - Microorganisms
    - Crystalline elements
    - Other structures

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## Examination of Body Fluids

- Clinical Chemistry
- Chemical analytes
  - Glucose
  - Protein
  - others?

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## Overview of Body Fluid Analysis

- Microbiology department
- Specimens collected in sterile containers
- Process and send to department stat.
  - Sample must not have been contaminated
  - Quick / stat processing necessary
    - To make sure that the amount of microorganisms present is representative of current level of infection in the patient. (bacteria continue to grow outside of the body)
    - Patient treatment may be delayed.

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## Overview of Body Fluid Analysis

- Cytology / Pathology
  - Unusual /suspicious cells
- Ancillary studies
  - Any special / non-routine tests needed.
  - Some may be done 'in-house' others sent to reference laboratory.

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