

Strategies for Teaching Clinical Reasoning

Teaching of Tomorrow
November 2020

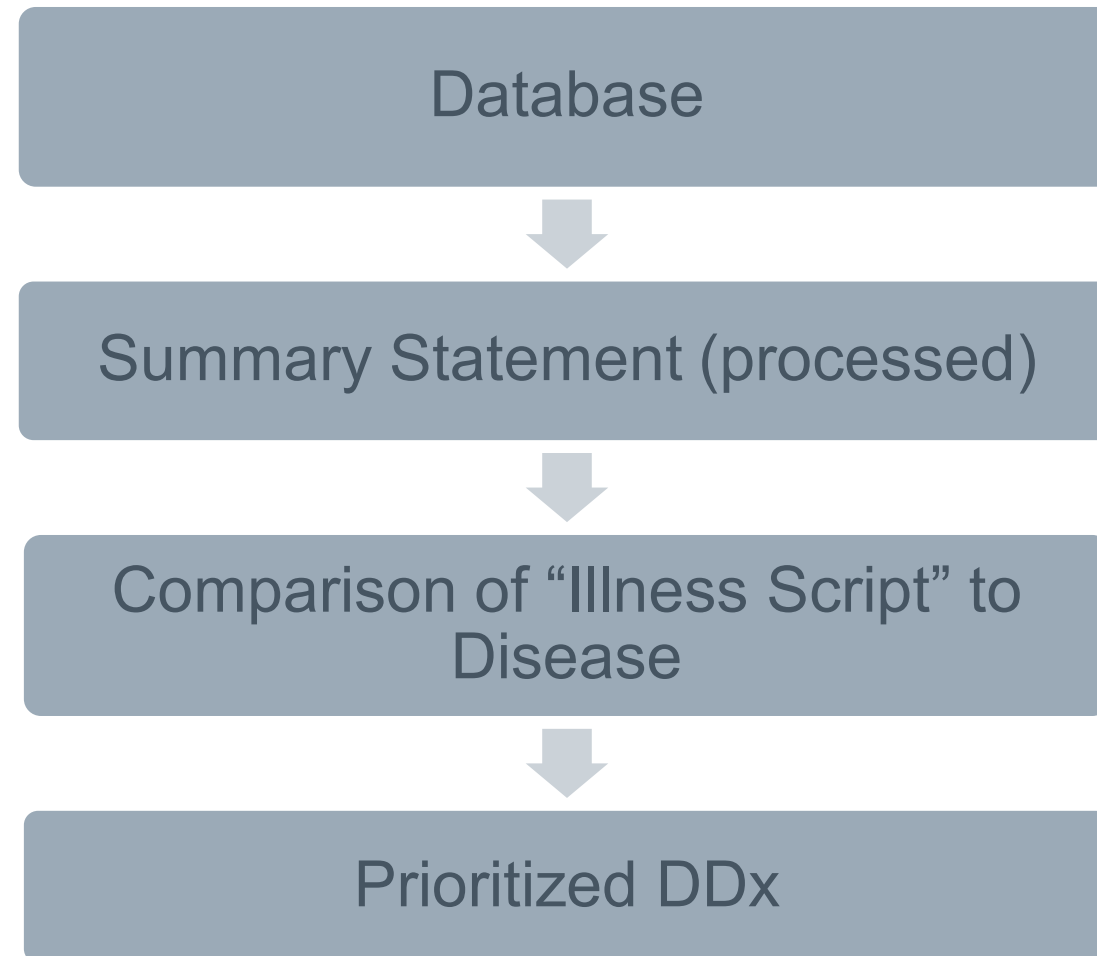


Session Goals

By the end of this session participants will be able to:

- › Promote the use of pattern recognition in clinical case discussions with learners
- › Emphasize the use of summary statements describing a patient's presentation
- › Teach an objective “compare and contrast” strategy in forming prioritized differential diagnoses

Can We Teach Doctors How to Think?



Processing Key Features

- › Eliminate non-specific/redundant symptoms
- › Identify most important symptoms
- › Group those symptoms/signs that explain the most important elements of the case (identify patterns)
- › Descriptively process all items on the list

Summary Statement (Illness Script)

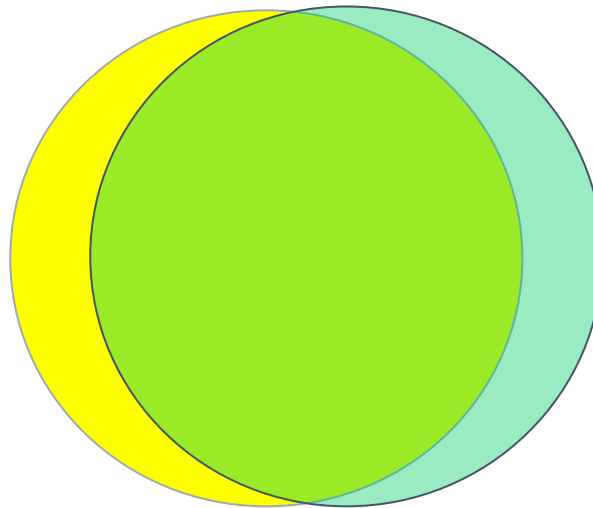
- › Time course
- › Epidemiology
- › Key features of the database (processed)

Compare and Contrast

- › Generate potential diagnoses to consider
- › Define the key or classic features of proposed disease
- › Compare and contrast these features with the features and patterns in current patient
- › Prioritize the DDx based on the comparison process

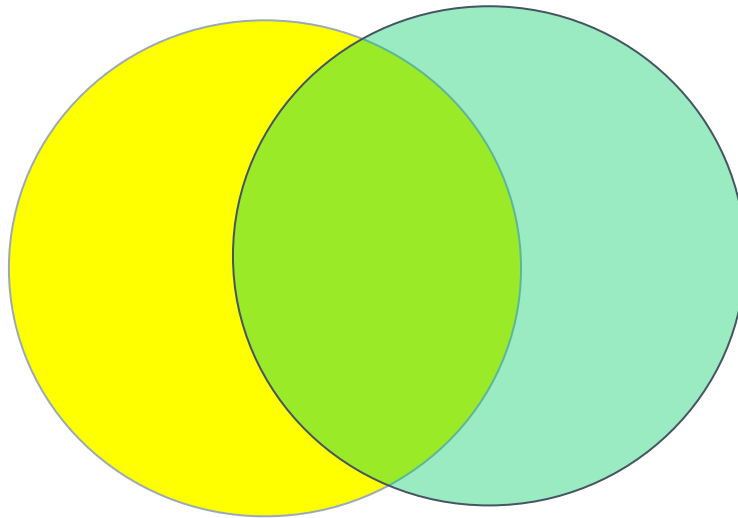
Prioritized DDx

› Type 1 Diagnosis



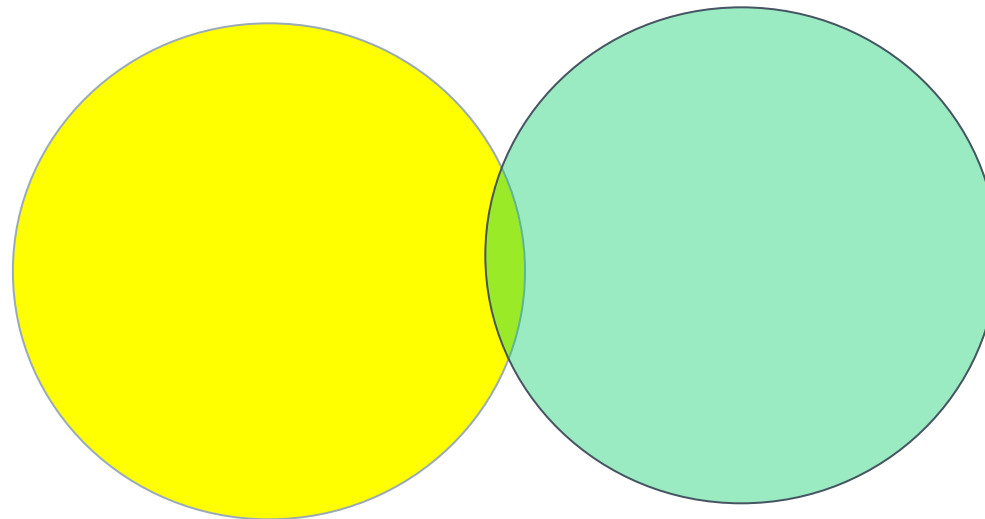
Prioritized DDx

› Type 2 Diagnosis



Prioritized DDx

› Type 3 Diagnosis



Prioritized DDx

› Type 1b Diagnosis

?

Prioritized DDx

- › Type 1
 - 1b

- › Type 2

- › Type 3

CC: Headache and Confusion

- › 32 yo African American woman with AIDS, (CD4=22) presents with four weeks of worsening headache and fever. The headache is over her entire head, throbbing and unremitting and is associated with photophobia and stiff neck. Over the past two days she has stopped eating. She also complains of blurry vision and general aches and pains.

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CC: Headache and Confusion

- › PMH:
 - AIDS on no meds (ran out)
 - PCPx2
- › SH:
 - Prior IVDA (none for past year)
 - No tobacco
 - No ETOH
- › MEDS: none
- › NKDA

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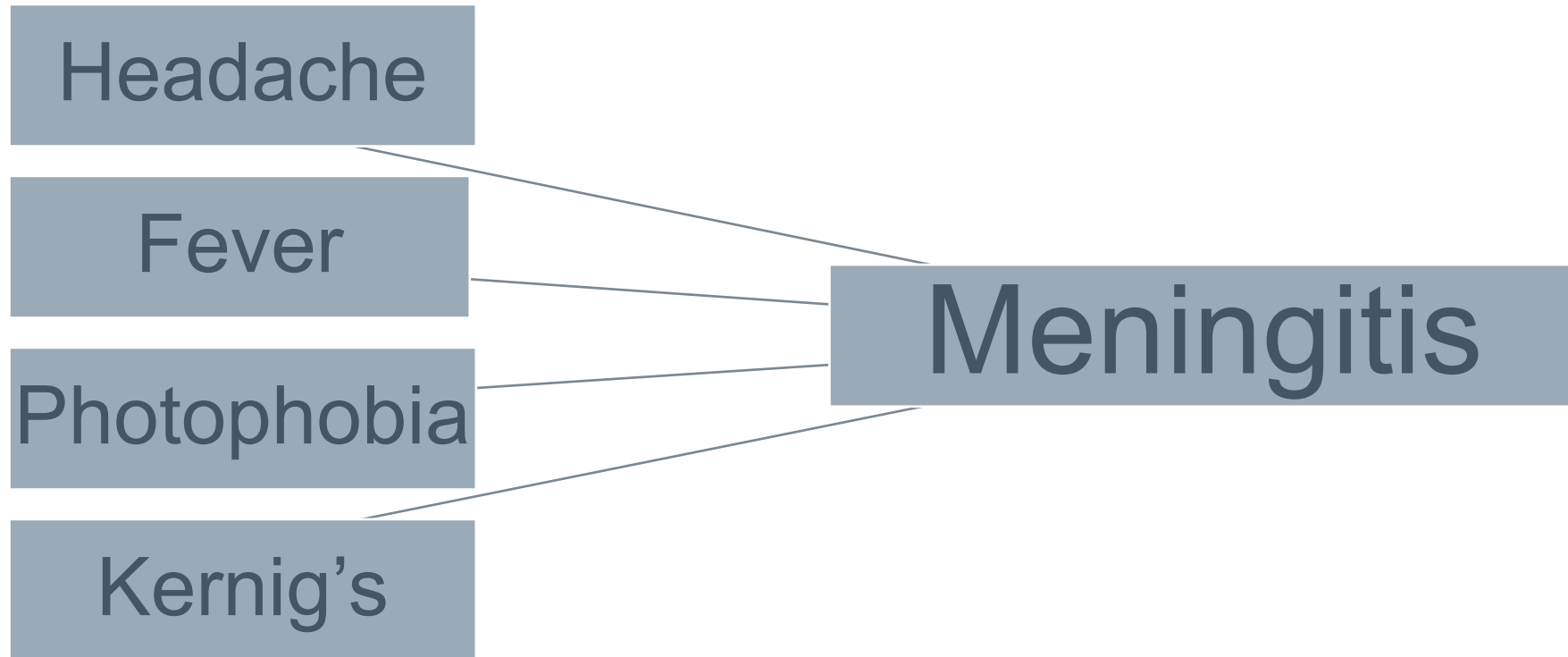
Physical Exam

- › VS: T=103.5 BP: 139/72 P=100 RR:=20 (+orthostasis)
- › GEN: Lethargic in NAD
- › HEENT: dry membranes, + photophobia, + papilledema, + meningismus
- › NEURO: oriented x1, no motor deficits, unable to test sensory or cerebellar fxn

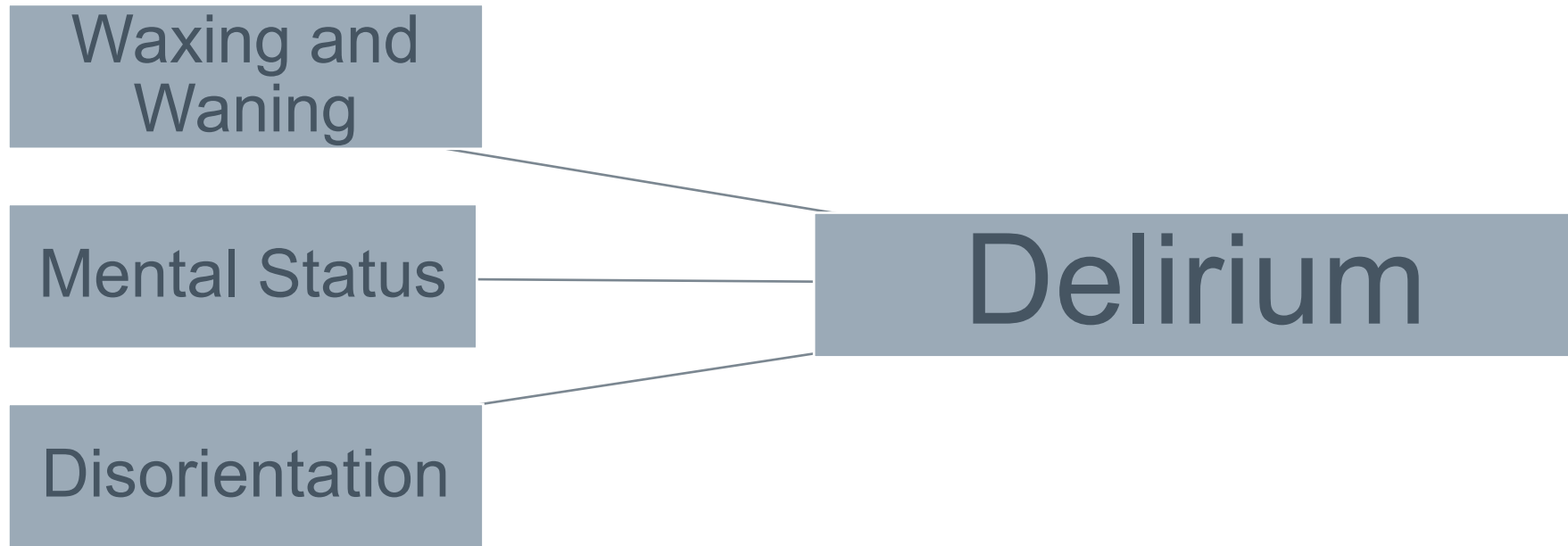
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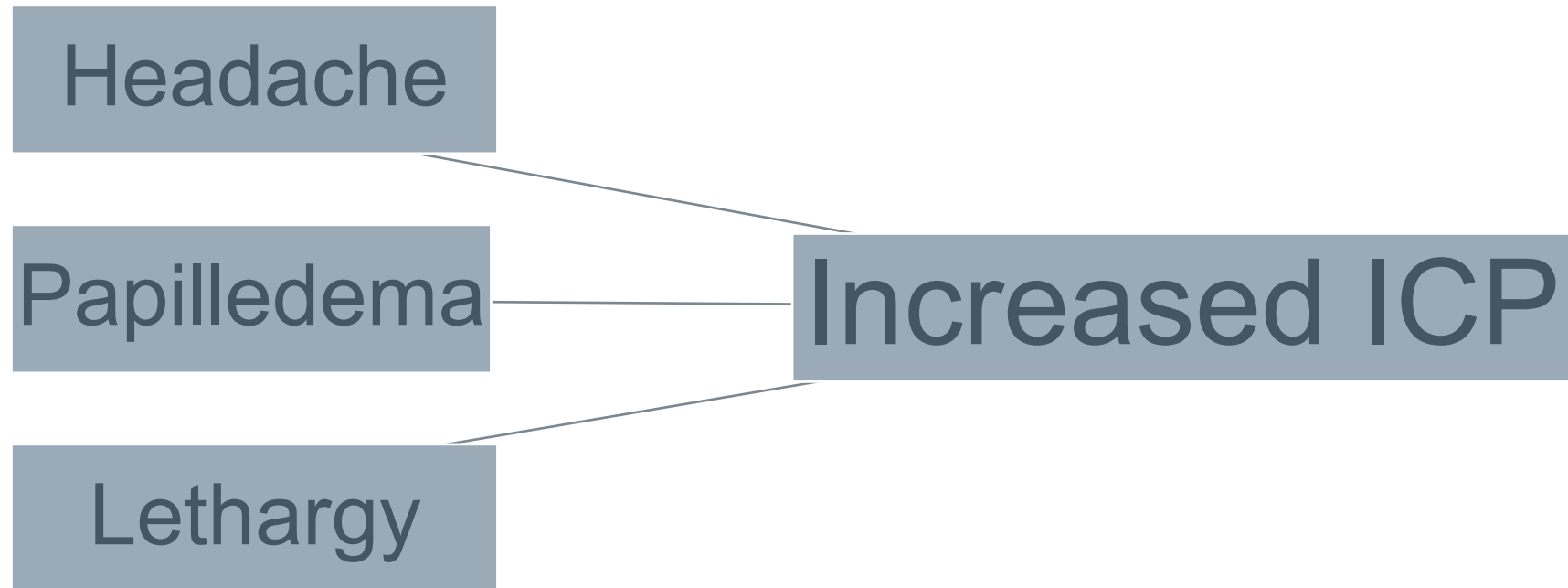
Processed Key Features



Processed Key Features



Processed Key Features



Processed Key Features

Poor po Intake

Orthostasis

Dry Oral

Membranes

Volume Depletion

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graph LR; A[Poor po Intake] --- D[Volume Depletion]; B[Orthostasis] --- D; C[Dry Oral] --- D; E[Membranes] --- D;
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Summary Statement

Epidemiology: 35 yo woman with AIDS

Time Course: Sub-acute

Key Patterns:

Meningitis

Delirium

Increased ICP

Volume Depletion

Prioritized DDx

- › Type 1

 - 1b

- › Type 2

- › Type 3

Clinical Reasoning Summary

- › Pattern recognition is a key strategy for advanced clinical reasoning
- › Summary statements provide a concise description of a patient's illness
- › An objective compare and contrast process promotes the formation of prioritized differential diagnoses

Prioritized DDx

- › Type 1: Cryptococcal Meningitis
TB Meningitis
1b: Bacterial Meningitis
- › Type 2: Toxoplasmosis
CNS Lymphoma
- › Type 3: Sarcoidosis
Pseudotumor Cerebri