General Internal Medicine Review Course

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Welcome and Introduction

Adult learning theory

- Methods – case based helps
- Differences from time during training
  - Attention span
  - Motivation
  - Mostly self-driven
- Continuous

Approach to Patient Care

- Take ownership of patients
- Patient encounter location/expectation matters
  - Well visit / general checkup
  - New problem
  - Follow up of chronic illness or test results
  - Acute exacerbation of chronic illness
  - Urgent care
  - Emergency care
  - Overnight observation
  - Planned procedures
  - In-patient ward care
  - In-patient HDU/ICU care

Approach to Patient Care

- Example: shortness of breath
- Example: cough
- Example: chest pain

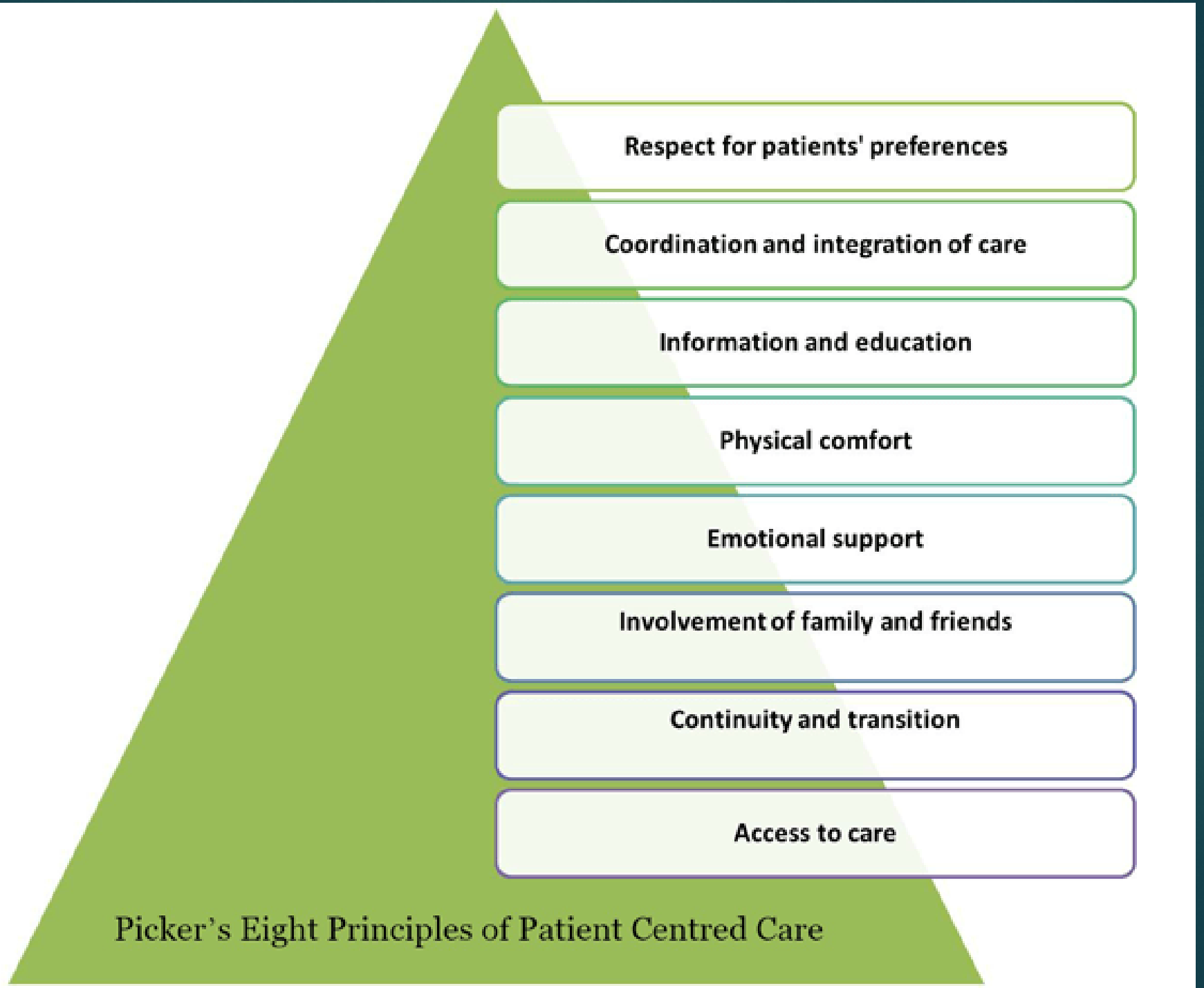
Approach to Patient Care

- Medical Ethics: Autonomy, Justice, Beneficence, Non-maleficence
- CPD: continuous learning / keeping up to date with medical advances
- Balance: quality versus throughput versus acuity
  - Multi-tasking
  - Prioritizing
  - Effective hand-overs
- Attitude: patients can tell what your attitude is
  - It's my job – my job is to see 30 patients and keep wait time low
  - Your problem is – my job is to pick a diagnosis and pill to treat it
  - You are MY patient – I will care for your various medical issues over time
  - Patient centered care – I care about your mental, spiritual, and physical well-being

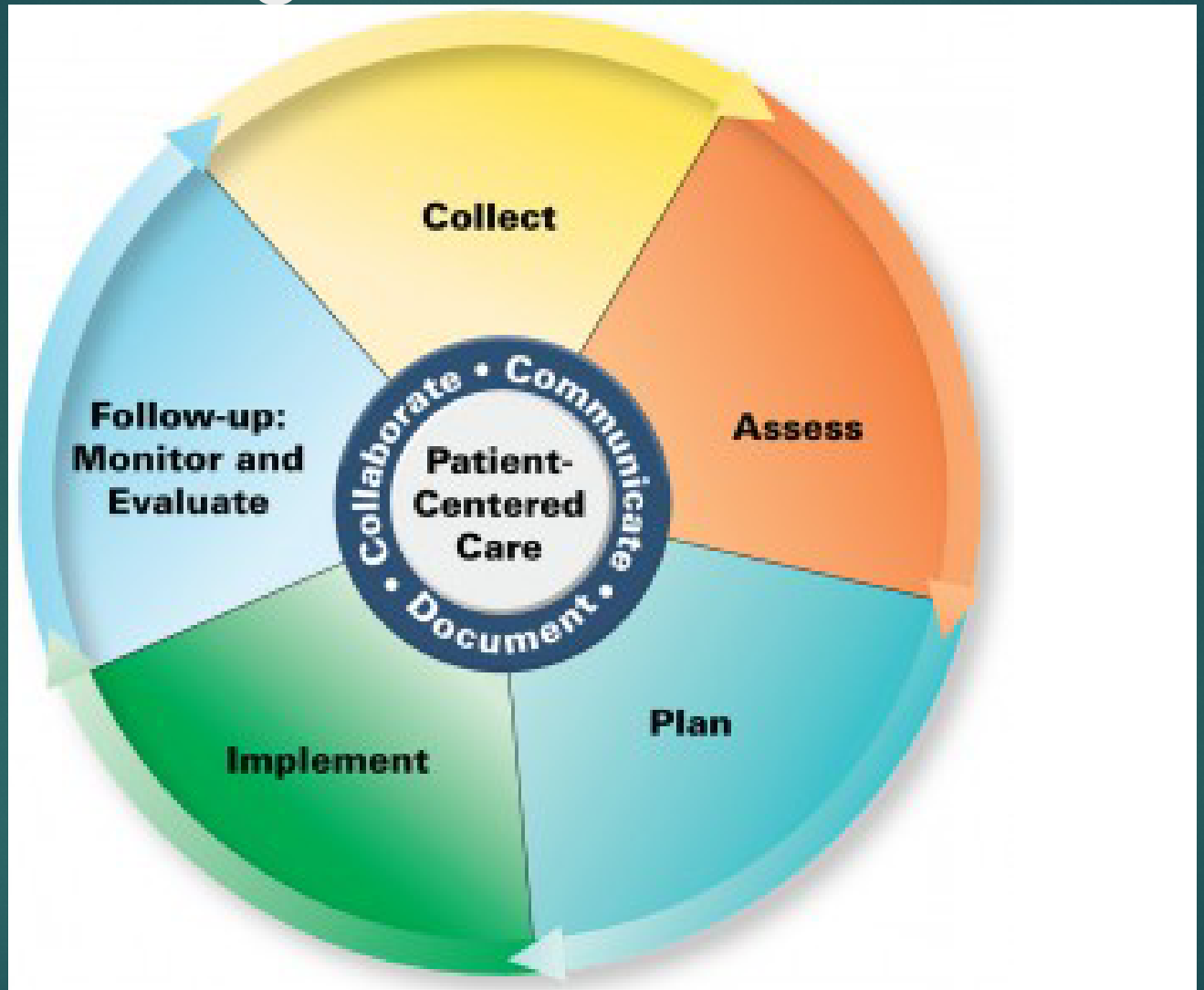
PATIENT-CENTERED CARE

Ethics – Biblical Principles

- The 10 Commandments (Exodus 20)
- The Health laws of the Old Testament (Leviticus)
- The Beatitudes (Matthew 5)
- The Sheep and the Goats at the End of Time (Mathew 25)
- The Good Samaritan (Luke 10)


Respect for patients' preferences
Coordination and integration of care
Information and education
Physical comfort
Emotional support
Involvement of family and friends
Continuity and transition
Access to care
Picker's Eight Principles of Patient Centred Care

Implementing Patient Centered Care



Source: J.T. DiPiro, R.L. Talbert, G.C. Yee, G.R. Matzke, B.G. Wells, L.M. Posey: Pharmacotherapy: A Pathophysiologic Approach, 10th Edition, www.accesspharmacy.com

Approach to Patient Care - Tips

- Use active listening skills
- Use empathetic language
- Ask very specific questions
- Always, always examine the body part in question
- Patient education (websites, handouts, diagrams)
- Provide written instruction when appropriate (> age 60 almost all)

Approach to patient care

- Russian proverb: ”Trust, but verify.”
- Residency proverb: “Patients lie.”

- Have you been taking your blood-thinners?
- Do you have normal bowel movements?
- What medications do you take?
- How much salt have you been eating?

- Exit surveys: patients remember about 50% of what the doctor says

Approach to Patient Care - Pitfalls

Cognitive biases in medical care

- **Anchoring bias** is the tendency to rely too heavily on one piece of information or idea — usually the first — when making decisions.
- **Wishful thinking bias** is the idea that people believe in what they want to be true. This bias could cause someone to overestimate the rewards while underestimating the risks of certain decisions.
- **Confirmation bias** is the tendency to look for information that confirms one's preconceptions, often while dismissing information that may challenge them.
- **Availability heuristic** is the tendency to overestimate the likelihood of events that are more readily available in one's memories.

- The following slides are selected from presentations found online

From Mindless to Mindful Practice – Cognitive Bias and Medical Decision Making

Pat Croskerry MD, PhD, FRCP(Edin)

SAM Belfast

The Titanic Centre, Belfast 5-6 May 2016

Case 1

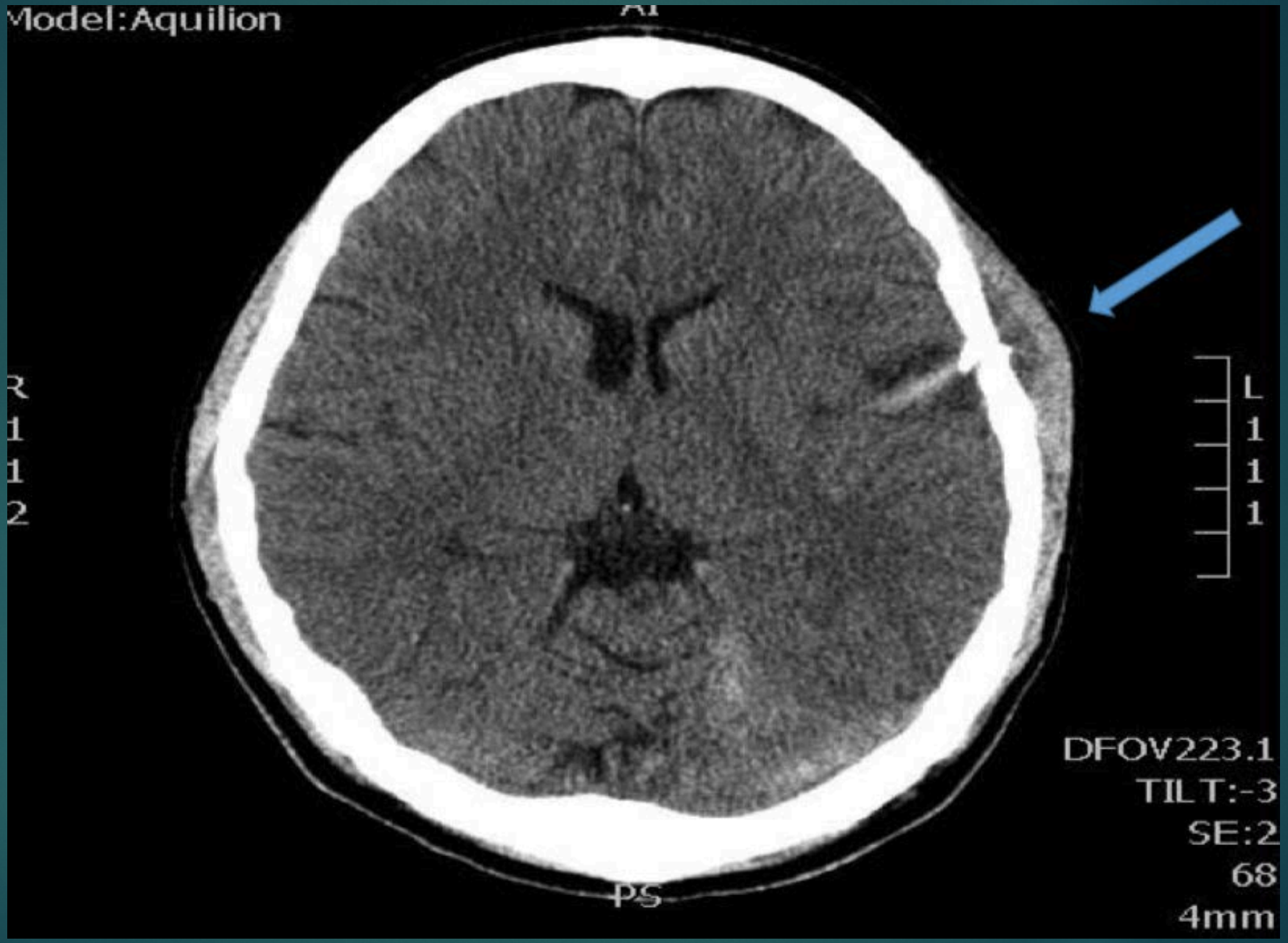
- A 4-year-old boy, no significant medical history and no history of asthma presented to the PED in the winter with acute-onset respiratory distress. The triage nurse noted increased work of breathing, decreased air movement, and wheezing. He was placed on nebulized albuterol by facemask over 1 hour.
- The intern documented subcostal retractions and minimal wheezing and reported to the supervising pediatric emergency medicine fellow that he was ‘‘too tight to hear wheezing because of poor air movement.’’ Oxygen saturation was 88% in room air, RR was 40, and HR was 150. He was normotensive and afebrile. A chest x-ray (CXR) was completed.
- Before it was read, the child developed progressively severe respiratory distress and became obtunded. He was emergently intubated.
- The preintubation CXR showed a soft tissue density in the midtrachea. He was tracheally intubated. He was subsequently taken to the OR. Rigid bronchoscopy revealed a macerated, partially chewed hotdog fragment in the right main stem bronchus, which was removed. The child was admitted to the PICU and recovered without further complications
- Park et al, Ped Emerg Care 2014

Case 2

- 12-year-old girl, with a history of asthma, complained of shortness of breath and chest pain shortly after beginning a basketball game. Despite using her inhalers, she appeared to be worsening and an ambulance was called. She was given nebulised albuterol by facemask and immediately taken to the nearby PED. On arrival she deteriorated further, stopped breathing and had a cardiac arrest.
- Chest compressions were initiated immediately and she was intubated. Despite prolonged efforts by the resuscitation team she did not respond and all further efforts were ceased after an hour.
- At autopsy she was found to have a tension pneumothorax.

Case 3

- A 21 y/o male arrives at the ED with multiple stab wounds to the chest, arms and head. One of the chest wounds is inferior to the L scapular.
- OE: Talking, cooperative, inebriated, no dyspnoea or SOB, AE = bilaterally, 02 Sat N; 130/80, HR 80-90. Lac on scapula deep – local wound exploration did not penetrate the pleural cavity, ribs palpable with pleura behind. EDTUS: good views, no free fluid. Serial abdominal exams N, rectal exam N. CXR N.
- Lacerations irrigated, explored, and repaired. Discharge Dx: stab wound chest. D/C Home
- 5 days later presented to a different hospital with vomiting, blurred vision and difficulty concentrating
- CT scan showed penetrating wound to brain


Model:Aquilion
A
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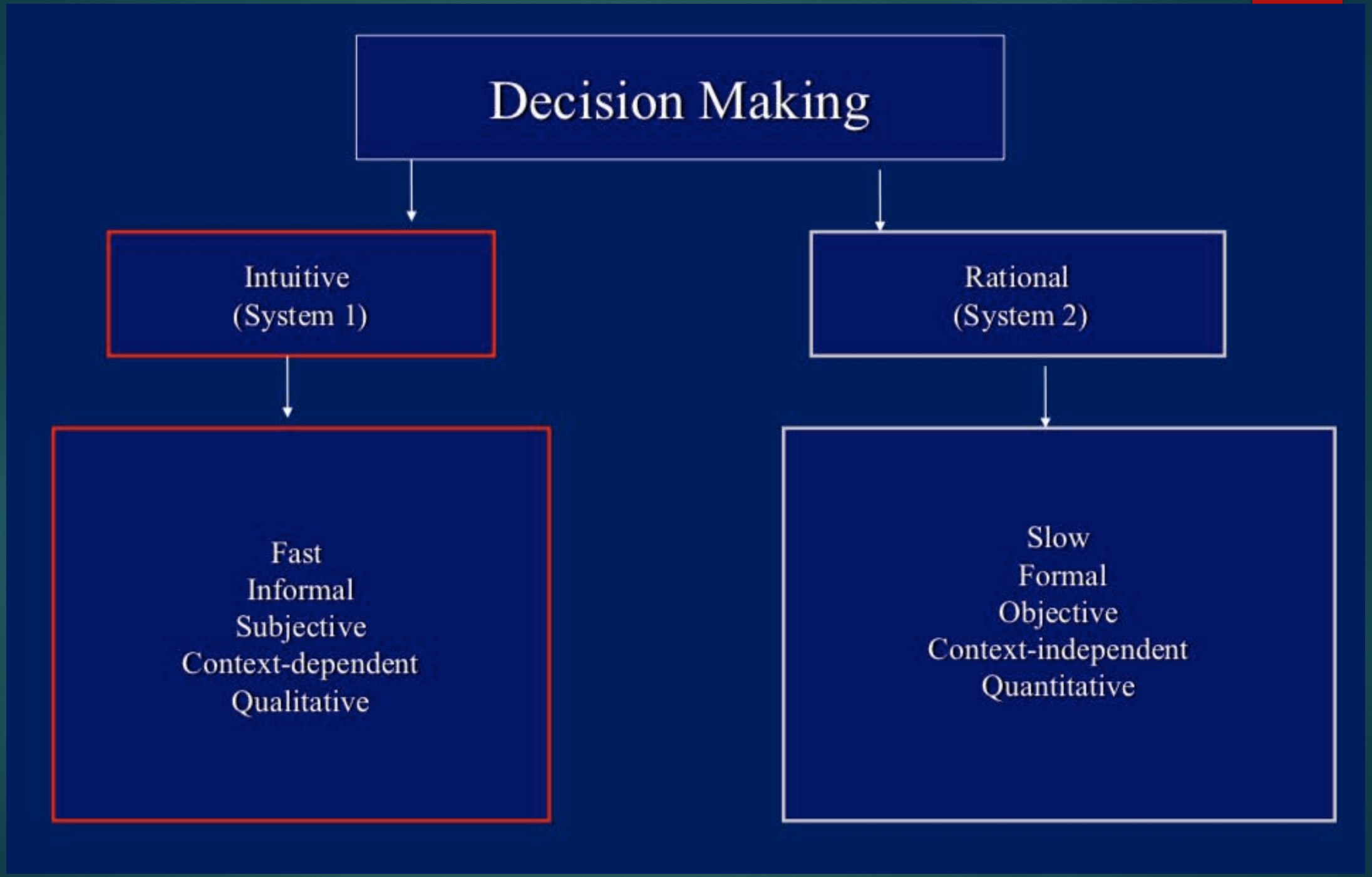
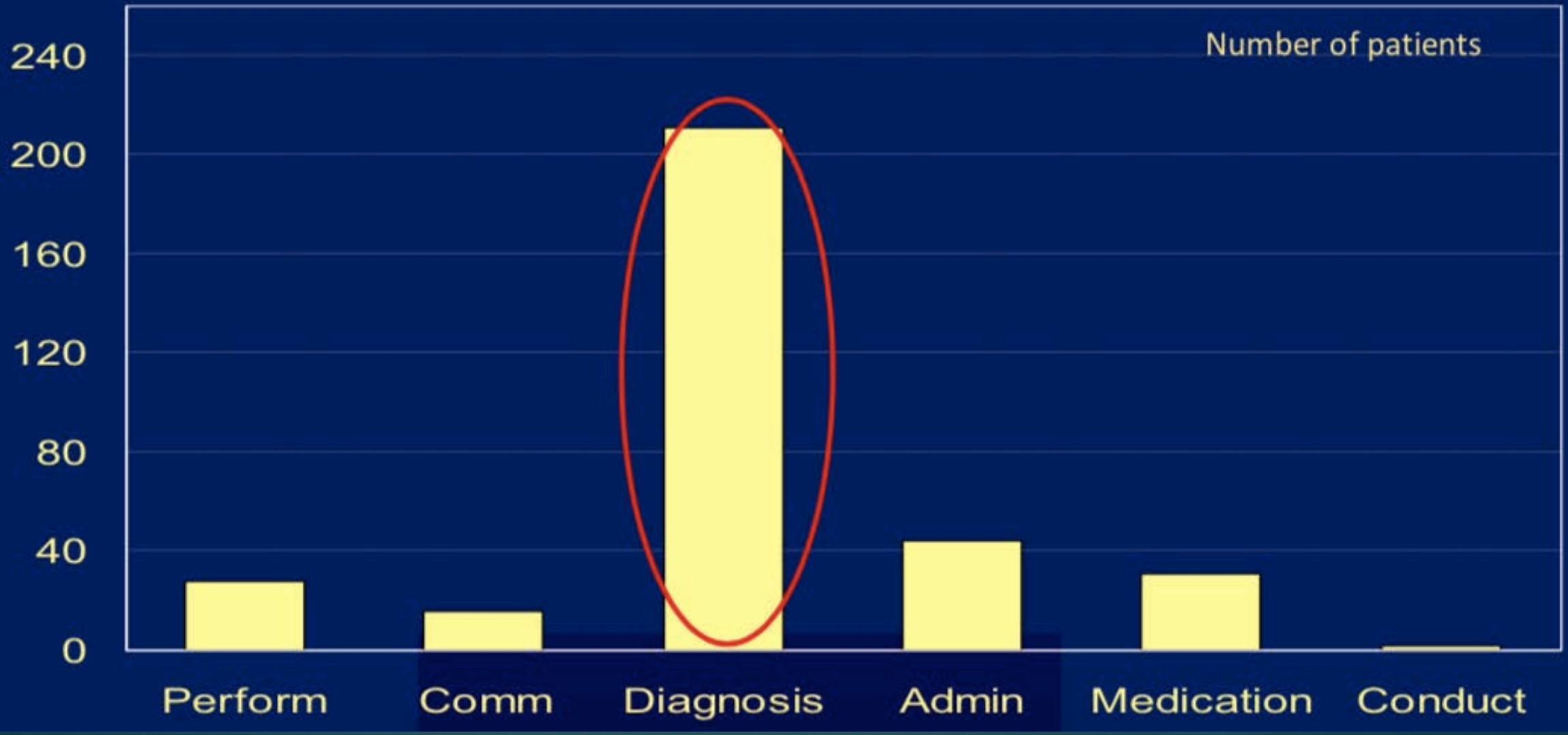

Decision Making
Intuitive
(System 1)
Rational
(System 2)
Fast
Informal
Subjective
Context-dependent
Qualitative
Slow
Formal
Objective
Context-independent
Quantitative

Two main areas of decision making

- Making the diagnosis
- Treating the patient

Legal outcome by critical incident

CMPA Data : 347 legal actions closed 2005 - 2009



Intuition (system 1) – Can you trust it?

- Fast
- Compelling
- Frequent
- Minimal cognitive effort required
- Addictive
- Mostly serve us well
- Occasionally catastrophic

- How well do we do?
  - Diagnostic failure estimated 15%
  - About 60,000 deaths / year USA
  - Est. 75% due to individual
- How do you control it?
- MINDFULLNESS = Nonjudgmental awareness of the present moment
- Not WHAT you know but HOW you think

COMMENTARY

JAMA 2010

Clinician Mindfulness and Patient Safety

Erica M. S. Sibinga, MD, MHS

Albert W. Wu, MD, MPH

PATIENT SAFETY HAS BEEN A TOPIC OF CONSIDERABLE interest over the last decade, with evidence showing that medical errors are responsible for substantial morbidity and mortality. There has been significant progress in understanding, identifying, and addressing errors at a system level; however, the performance of individual clinicians remains a crucial and

Roots of Diagnostic Errors

Cognitive dispositions to respond that influence the diagnostic process are characterized by a lack of awareness and responsiveness by the individual to his or her own cognitive and affective processes.[2,3] For example, confirmation bias favors the pursuit of data that support a diagnosis over data that refute it. This may be compounded by anchoring bias, a resistance to adapting appropriately to subsequent data that suggest alternative diagnoses. Together, confirmation and anchoring bias can result in an incorrect diagnosis. This, in turn, reduces the chance of ameliorative treatment and

What is the clinician's problem?

- Isn't bright enough
- Doesn't know enough
- Isn't trying hard enough
- Isn't thinking rationally
- Is cognitively impaired
- Is not having a good day

Improving diagnosis in Health Care

Report release in September 2015

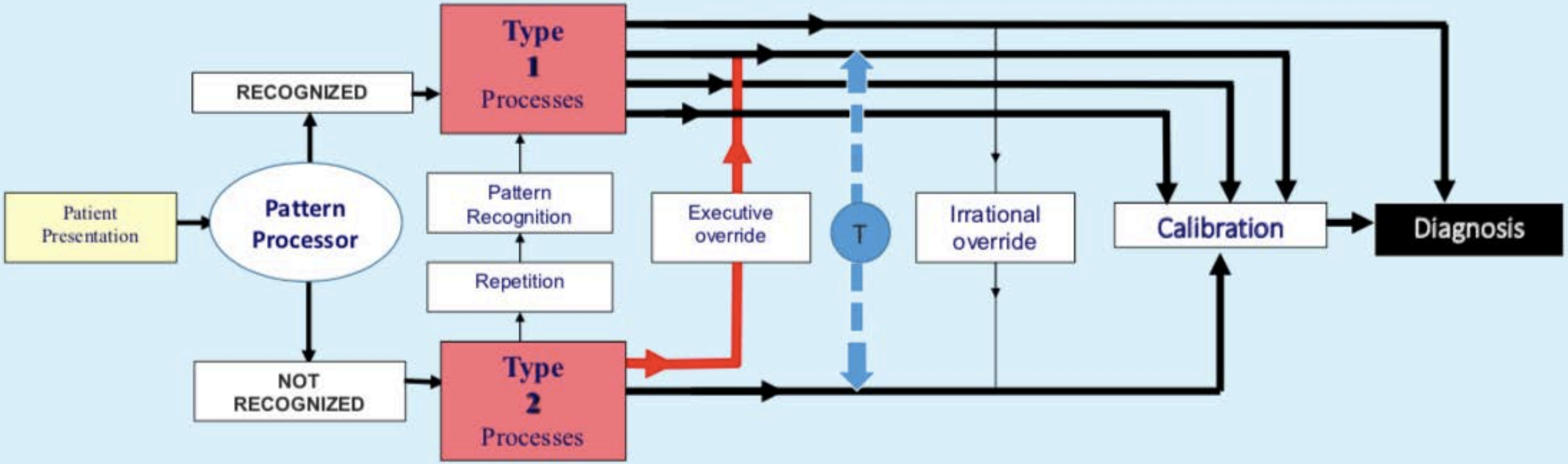
'The critical thinking in understanding the common causes of cognitive errors can be and should be taught to all health professionals, particularly physicians, nurse practitioners and physician's assistants who will be in a primary diagnostic role …'

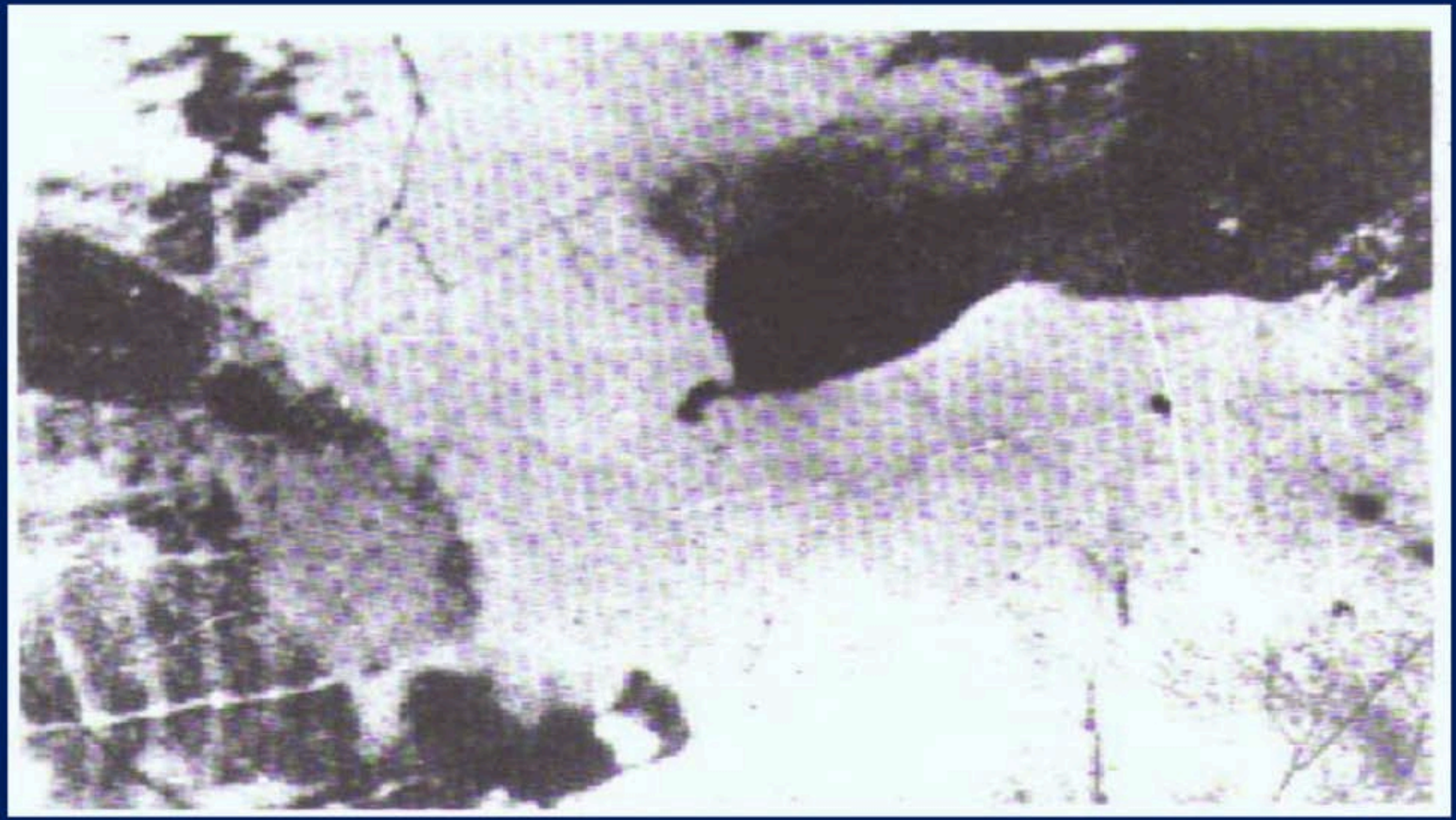
George Thibault MD

Dual Process Decision Making

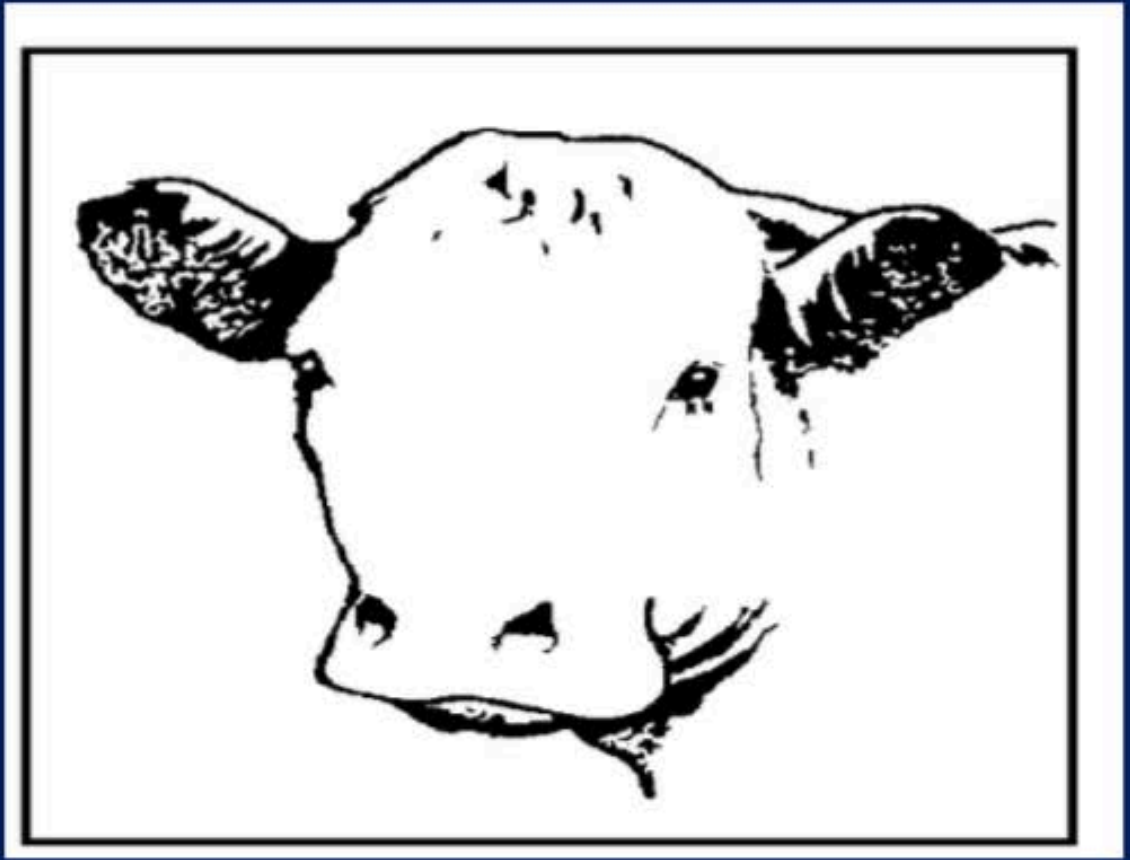
System 1: Automatic/streamlined

System 2: Cautious/complex

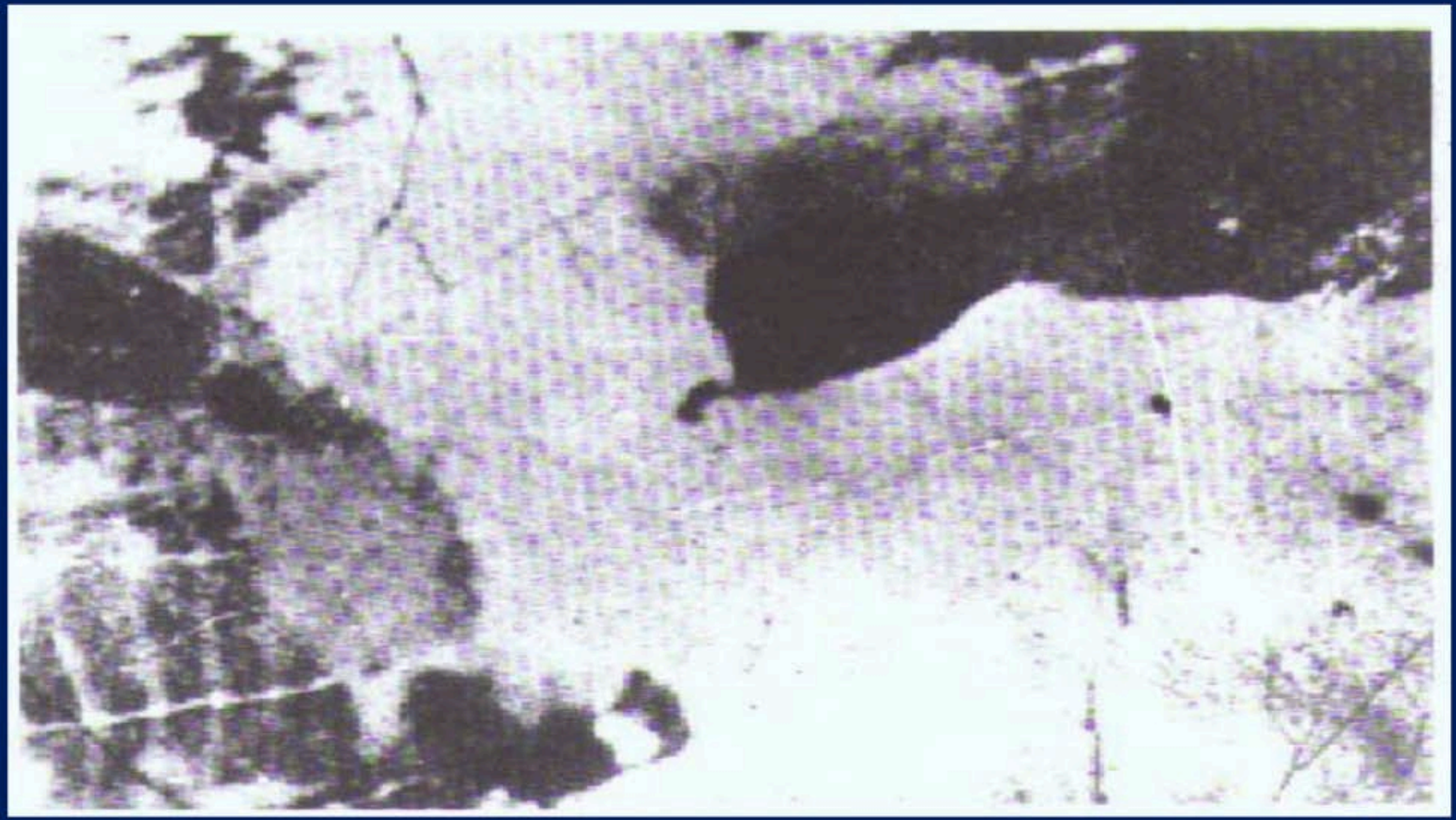

Type
1
Processes
RECOGNIZED
Patient
Presentation
Pattern
Processor
Pattern
Recognition
Repetition
Executive
override
T
Irrational
override
Calibration
Diagnosis
NOT
RECOGNIZED
Type
2
Processes



Life is about learning the basic patterns



COW

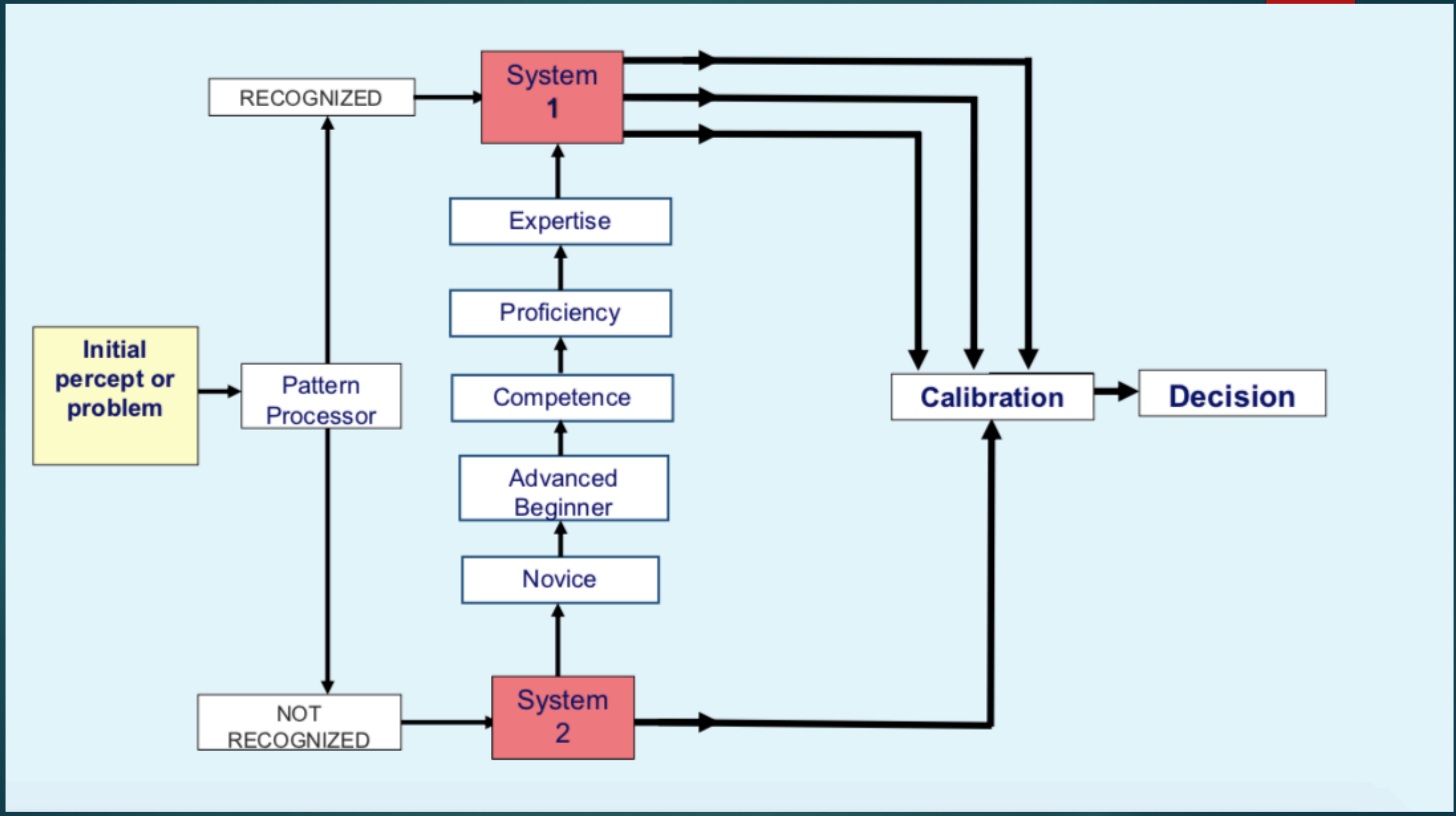


'Cognitive thought is the tip of an enormous iceberg. It is the rule of thumb among cognitive scientists that unconscious thought is 95% of all thought –
this 95% below the surface of conscious awareness shapes and structures all conscious thought'

Lakoff and Johnson, 1999

Essentials for optimal CDM

- Learning about how the brain makes decisions
- Factors that influence decision making performance
- Awareness and understanding of cognitive and affective biases
- Understanding of rationality
- Knowledge of the logical fallacies - recognition and mitigation
- Cognitive bias detection and mitigation strategies
- Learning about mindfulness and reflection


RECOGNIZED
System 1
Expertise
Proficiency
Competence
Advanced Beginner
Novice
Initial percept or problem
Pattern Processor
Calibration
Decision
NOT RECOGNIZED
System 2

"It sort of makes you stop and think, doesn't it."

Approach to Patient Care - Pitfalls

- Cognitive bias in medical care
- Failure to address the “whole person”
- Failure to recognize insufficient response to treatment
- Failure to review all of the available data
- Failure to maintain a large differential diagnosis
- Failure to follow established guidelines