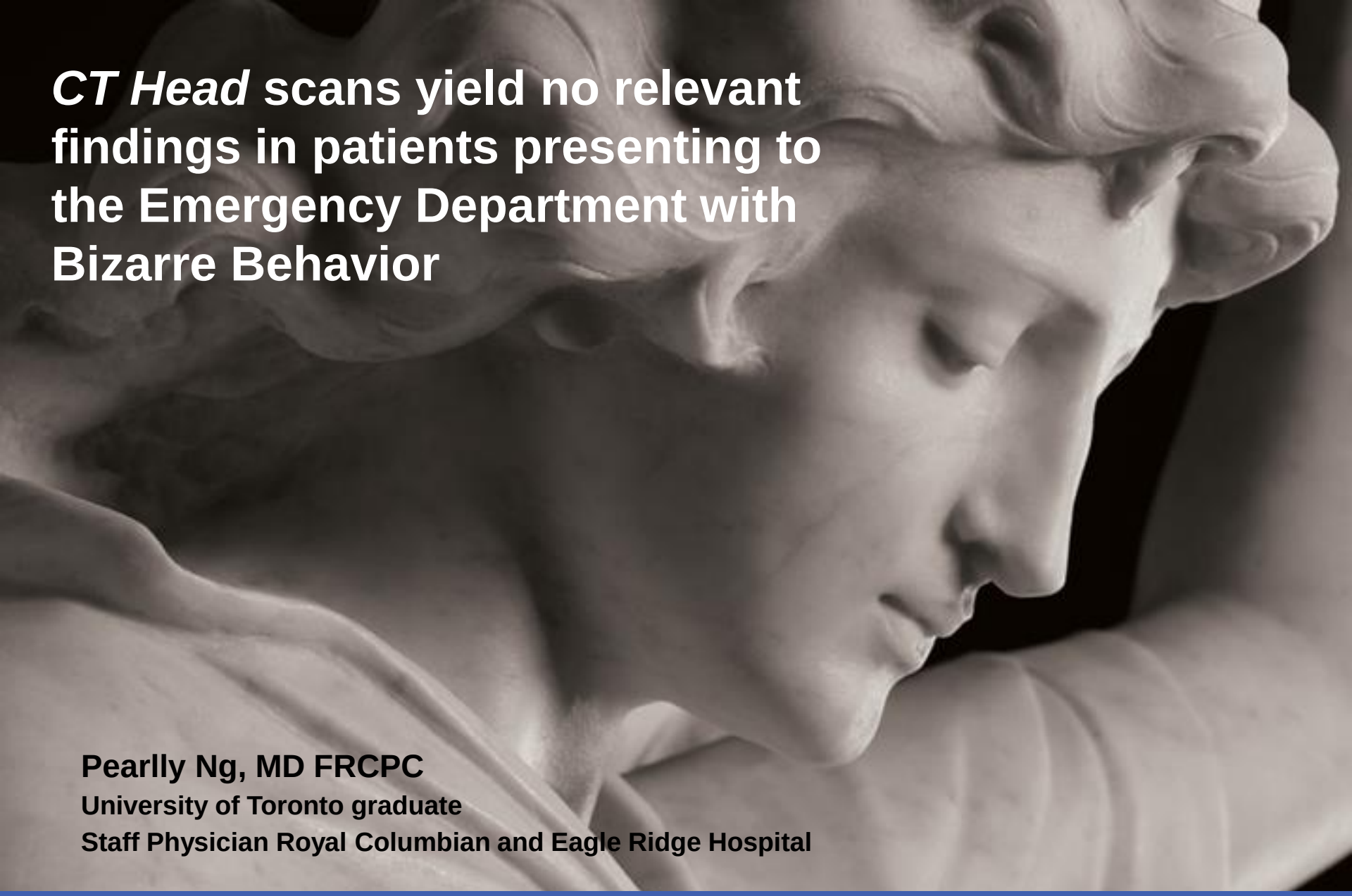

CT Head scans yield no relevant findings in patients presenting to the Emergency Department with Bizarre Behavior

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UHN
UNIVERSITY OF TORONTO FACULTY OF MEDICINE
St. Michael's
Inspired Care. Inspiring Science.

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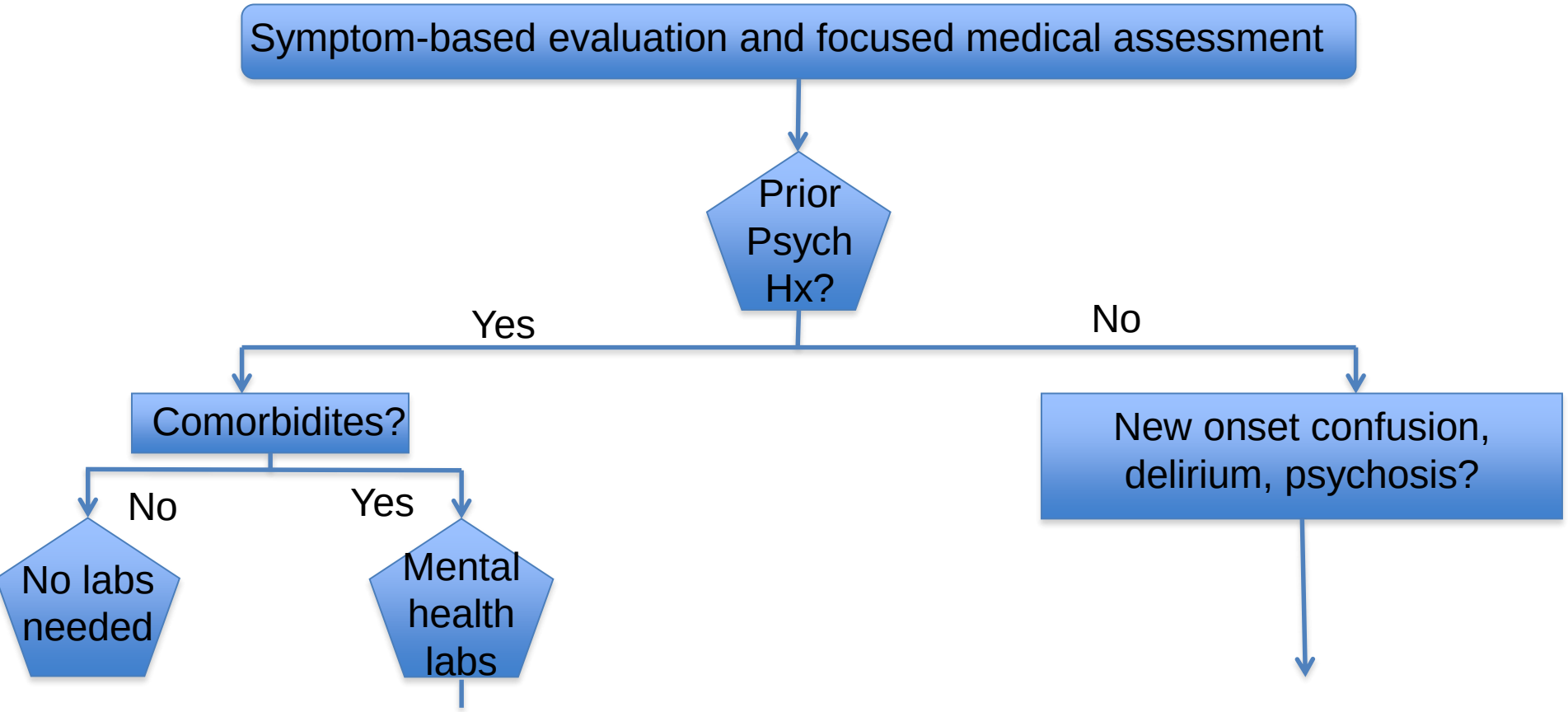
Background

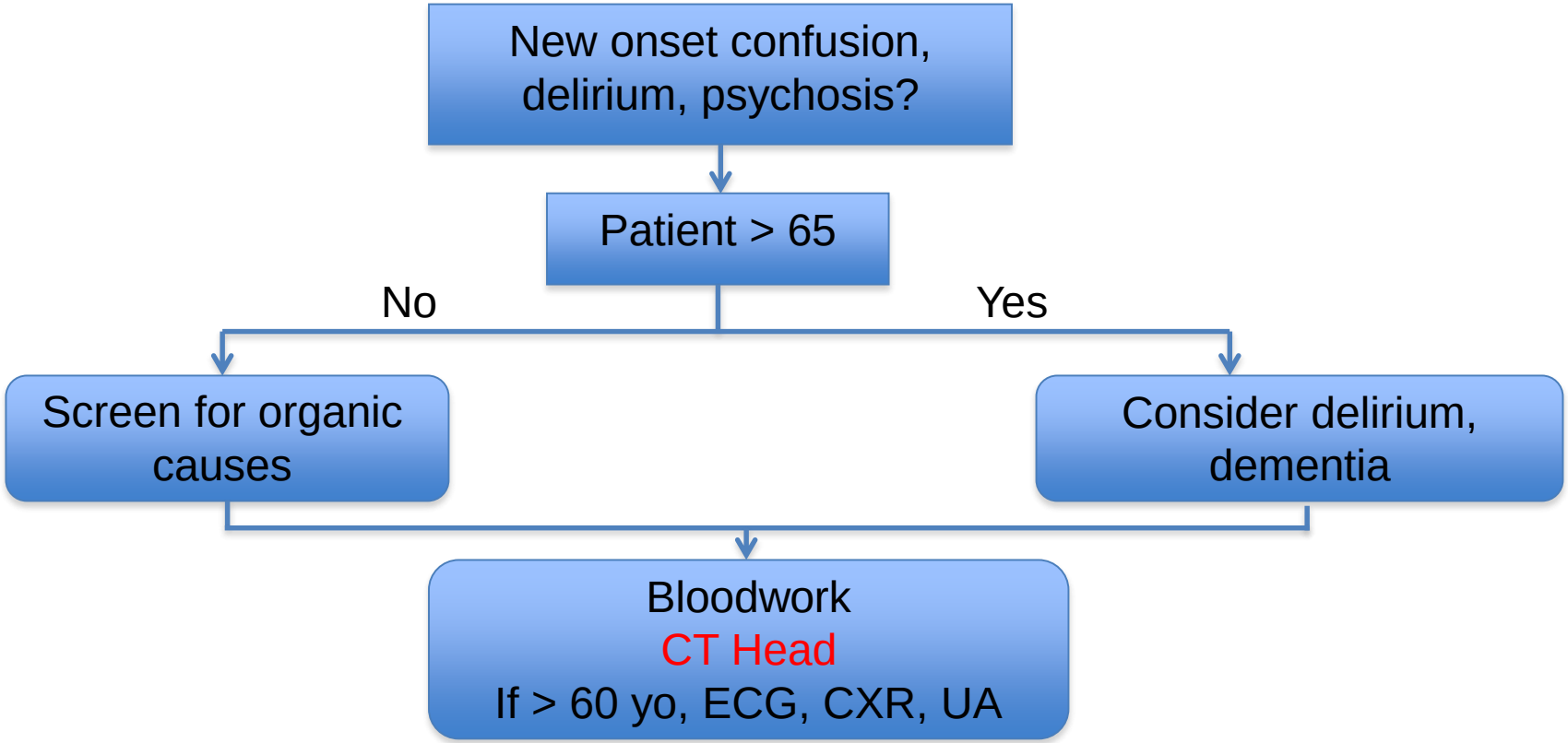
- Psychiatric patients may be challenging
  - ✓ poor historians
  - ✓ lack of identification
  - ✓ absence of collateral information
  - ✓ social complexities

- Collaborative Psychiatry Emergency Services (PES) and ED approach: medically clear and refer if indicated

Assessment Guidelines for patients who are medically stable for consult to PES



Assessment Guidelines for patients who are medically stable for consult to PES cont'd



Methods

- 5-year retrospective chart review at multiple sites
  - St. Michael's Hospital (SMH)
  - University Health Network (UHN)
    - Toronto General Hospital (TGH)
    - Toronto Western Hospital (TWH)
  - Mt Sinai Hospital (MSH)

Table 1. Review Criteria

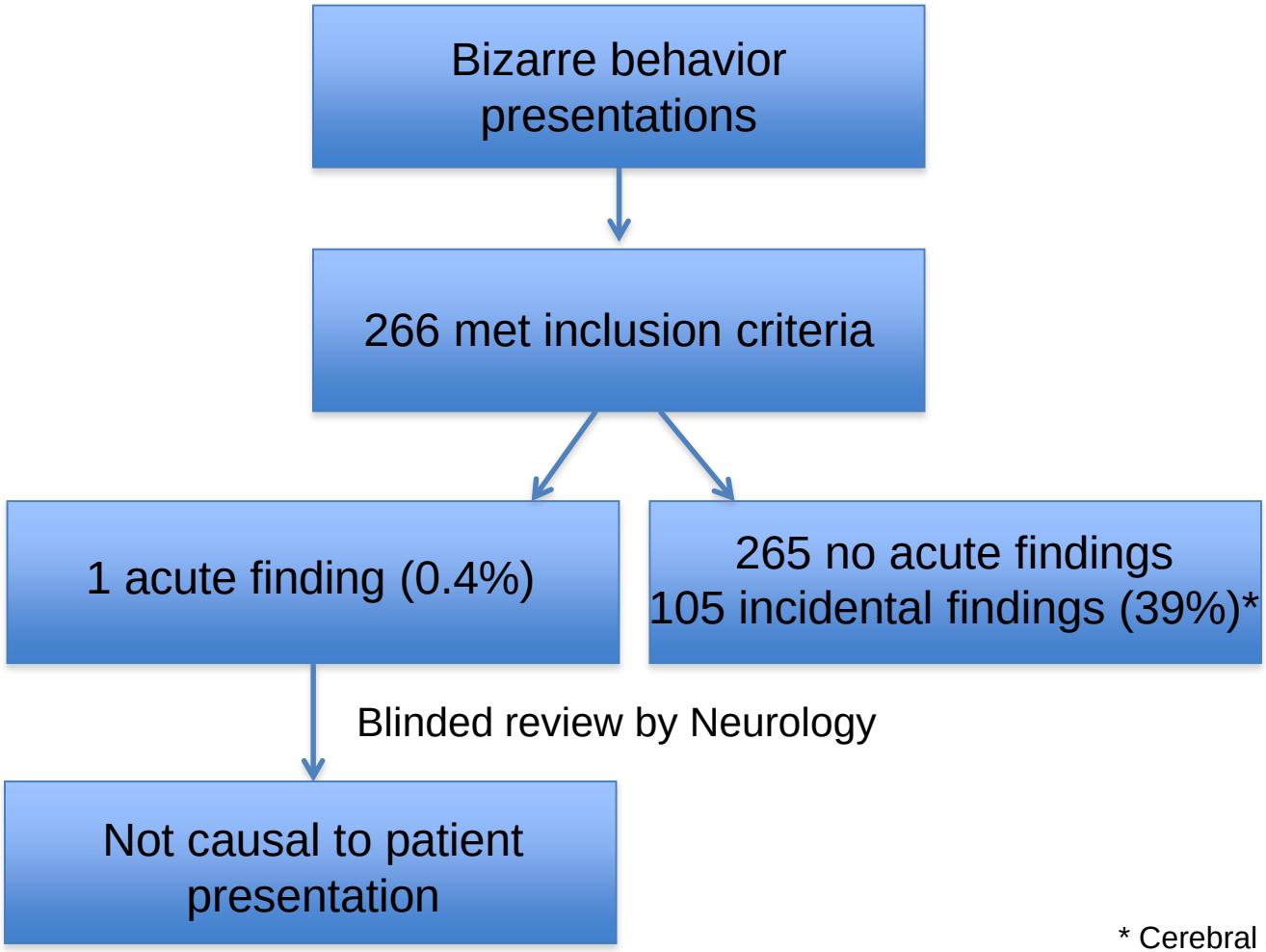
Inclusion	Exclusion
• ≥ 18 years of age • Triaged as "mental health – bizarre behaviour" • Deviation from normal cognitive function with no obvious cause • CT head performed during ED encounter	• Focal neurologic deficits on exam • Alternative medical etiology for bizarre behavior (i.e. delirium, trauma) • Pre-existing CNS disease • Abnormal vital signs • Intoxication or substance misuse

Outcome Measures

1. What percentage of CT Head scans demonstrated relevant findings that change clinical management?

2. How does obtaining a CT Head scan impact Emergency Department length of stay (LOS)?

CT Head Scans Yield No Relevant Findings



* Cerebral atrophy, arachnoid cysts, hypodensitieis

Table 1. Impact of obtaining CT head scans on time metrics (all sites, N = 266)		
Triage to MD assessment (hr:min)	Average (min-max)	1:48 ± 1:11 (0:04-6:13)
Triage to CT completion (hr:min)	Average (min-max)	5:05 ± 7:28 (0:03-68:54)
Average net delay while awaiting CT scan (hr:min)		3:17

Table 2. Impact on ED Length of Stay (SMH site)		
	Bizarre Behaviour with Consult and CT (n = 78)	Bizarre Behaviour with Consult and No CT (n = 1720)
Triage to MD Assessment (hr:min)	1:30 ± 1:16 (0:04 – 6:13)	1:43 ± 2:25 (0:00 – 23:34)
ED LOS (hr:min)	23:07 ± 17:35 (1:09 - 97:59)	18:05 ± 18:33 (0:57 – 166:30)
Net increase in ED LOS	5:02	

Conclusions

CT Head scans did not yield relevant findings

- No changes in ED management of the patient
- Possible risk from radiation exposure, chemical sedation

CT Head scans may delay consultant evaluation and ED LOS

- Delays initiation of treatment
- Contributes to ED crowding

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