

## **UC Irvine**

### **Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health**

#### **Title**

Beyond Premature Diagnostic Closure: Assessing Resident Knowledge of Decision Making Errors

#### **Permalink**

<https://escholarship.org/uc/item/4385v667>

#### **Journal**

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 15(5.1)

#### **ISSN**

1936-900X

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#### **Publication Date**

2014

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Peer reviewed

## 23 Beyond Premature Diagnostic Closure: Assessing Resident Knowledge of Decision Making Errors

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**Background:** Cognitive errors are a well-known but little-studied cause of missed diagnosis in the emergency department. Residents, with little clinical experience to fall back on, can be especially prone to these errors, which are not often taught as a part of residency curriculum.

**Objective:** To assess resident knowledge of common patterns of decision making errors. We hypothesized that residents would be able to identify “premature diagnostic closure” as it is frequently discussed, but that there would be poor knowledge of the other types of diagnostic errors.

**Methods:** At two emergency medicine residencies, residents were presented with ten brief case scenarios illustrating a decision making error and asked to identify the error from several choices. The ten errors were selected as the most important for residents by consensus of five attendings, and included anchoring and adjustment, aggregate bias, base rate neglect, playing the odds, the posterior probability error, the availability heuristic, diagnosis momentum, premature diagnostic closure, search satisfying, and commission bias. All residents were eligible for inclusion other than third year residents at one institution, who were not available to participate. Responses were recorded live via audience response clickers or online survey. The response rate was 78%.

**Results:** 79% [95% CI: 70-89%] of residents correctly identified premature diagnostic closure (highest score). Significantly fewer residents were able to identify each of the other decision making errors ( $p < 0.01$ ), including only 7% [95% CI: 1-14%] of residents who identified the aggregate bias.

**Conclusion:** Resident knowledge of decision making errors other than premature diagnostic closure is poor. While this was a small study using unvalidated examples of decision making errors, it suggests that more education is necessary and that more studies are needed to determine if medical errors can be prevented by teaching residents about cognitive pitfalls

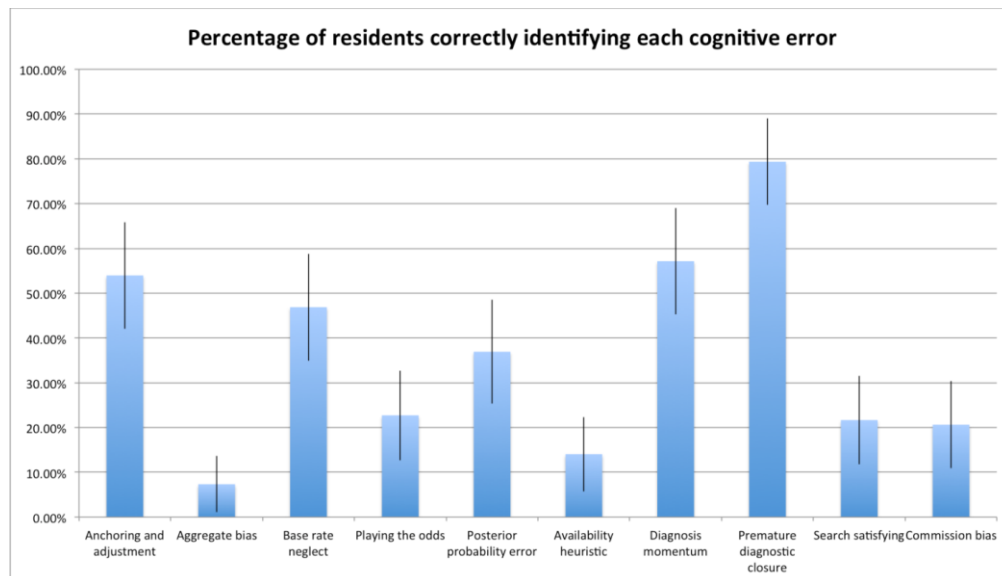


Figure 1.