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Emergency Department Management of Acute Penetrating Injuries Caused by Writing Utensils

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limited staff training, and workflow integration difficulties.

**Conclusions:** This survey provides an early assessment of AI use in EM residency recruitment, outlining common practices, benefits, concerns, and barriers to inform responsible and equitable integration into recruitment processes. Our findings highlight opportunities for clearer guidance, faculty development, and future research on practices and outcomes of AI-assisted recruitment. These insights can help shape future recommendations as AI tools evolve.

## 6 Emergency Department Management of Acute Penetrating Injuries Caused by Writing Utensils

*Natalie Oberhauser-Lim, Timothy Young, Sommer Aldana, Heather Kuntz*

**Background:** Pens and pencils may be an underrecognized source of penetrating injury in the pediatric population. Literature on such injuries consists mostly of case reports of extreme presentations that may not represent the range of injuries that occur.

**Objectives:** We sought to identify cases of penetrating pen and pencil injuries in pediatric patients. We expected to find the majority of patients were discharged from the emergency department without need for admission or operative intervention.

**Methods:** This was a retrospective chart review of patients ages 0-18 years who presented to our university tertiary referral center between 2013-2024. We identified cases for consideration using international classification of disease codes for penetrating injury or injury caused by contact with sharp objects. We excluded superficial injuries and injuries not caused by writing utensils. We reviewed the included cases to identify age, gender, intentionality, location of the injury, and types of treatment required.

**Results:** We identified 2159 charts meeting criteria for review and found 28 cases of penetrating injuries caused by writing utensils. The subjects' ages ranged from 5 months to 17 years at the time of injury. The median age was 8.5 years. Females accounted for 57% of cases (95%CI 39-74). Accidental injuries accounted for 75% of cases (95%CI 56-88). The majority of cases (82%, 95%CI 64-93) were managed in the emergency department and discharged. Patients were treated with antibiotics in 61% of cases (95%CI 42-76). Forty-three percent of cases (95%CI 26-61) had surgical consults, and only 18% of cases (95%CI 7-36) required management in the operating room.

**Conclusions:** Though the literature regarding penetrating pen and pencil injuries focuses on extreme cases needing operative management, our cohort of patients were primarily managed in the emergency department without the need for procedural intervention. A limitation of our study is that it was a single center study.

## 7 Threading the Needle: Competing Spectra of Burnout Susceptibility and Resilience in Emergency Medicine Residents

*Emily Steelquist, Max Griffith, Aarti Jain, Joshua Jauregui, Lalena Yarris, Jaime Jordan*

**Background:** Emergency Medicine (EM) residents experience the highest rate of burnout of any specialty. Although there have been many proposed interventions, burnout remains highly prevalent.

**Objectives:** To explore the experiences of EM residents in recognizing, approaching, and recovering from burnout in order to inform future efforts to mitigate the burnout epidemic in trainees.

**Methods:** This qualitative study interviewed PGY 2-4 residents at four American EM residencies. We applied a grounded theory approach and a constructivist/interpretivist paradigm to explore participants' experiences through interactive dialogue and co-created interpretation. Participants were invited to complete an online survey to collect demographics, information about their burnout experiences, and to schedule a virtual 60-minute semi-structured interview. Fifteen interviews were recorded, transcribed, coded, and analyzed.

**Results:** EM residents experience burnout susceptibility versus recovery on three spectra: coping by social connection versus withdrawal, perceiving burnout causes as societal versus individual, and seeing solutions to burnout as individual versus societal. Residents had a tendency to withdraw from others when experiencing burnout, yet believe that intentional connection can alleviate their symptoms. Viewing burnout primarily as the result of societal/organizational causes was protective. Solutions to burnout that felt most empowering to residents were individual. Perceiving burnout as the result of individual choices or seeing the solutions to burnout as requiring societal change worsened trainee distress.

**Conclusions:** Resilience to burnout requires residents to connect when they feel like withdrawing, and to take individual initiative when facing systemic obstacles. The difficulty of holding these intersecting views may explain the persistence of burnout, and may prompt future studies that explore how residents who demonstrate these behaviors do so in times of stress.