

INTRODUCTION

- Back pain affects 15-20% of the population at any one time, and accounted for 4.4% of all emergency department visits between 2000 and 2016
- The prevalence of serious spinal pathologies in outpatient setting is shown to be less than 1%
- There is growing utilization of outpatient settings for managing chronic pain through minimally invasive procedures
- Residents of major academic institutions are often the physician on call responding to post-procedure communications from the patient
- The primary objectives of this quality improvement project are to increase resident knowledge on adverse outcomes of injections and comfortability in triaging patient concerns into emergent, urgent, and non-urgent via telehealth

METHODS

- Within the first two weeks of the residency academic year, a didactics lecture was presented to all training physicians in our program about the common and uncommon post-procedure side effects of spinal and peripheral joint injections
- Residents completed identical pre-lecture and post-lecture surveys evaluating their personal history of receiving patient calls post-procedure and their comfortability levels answering patient concerns
- Residents took identical pre-lecture and post-lecture multiple-choice quizzes assessing their medical knowledge on procedure complications via single patient-centered vignettes

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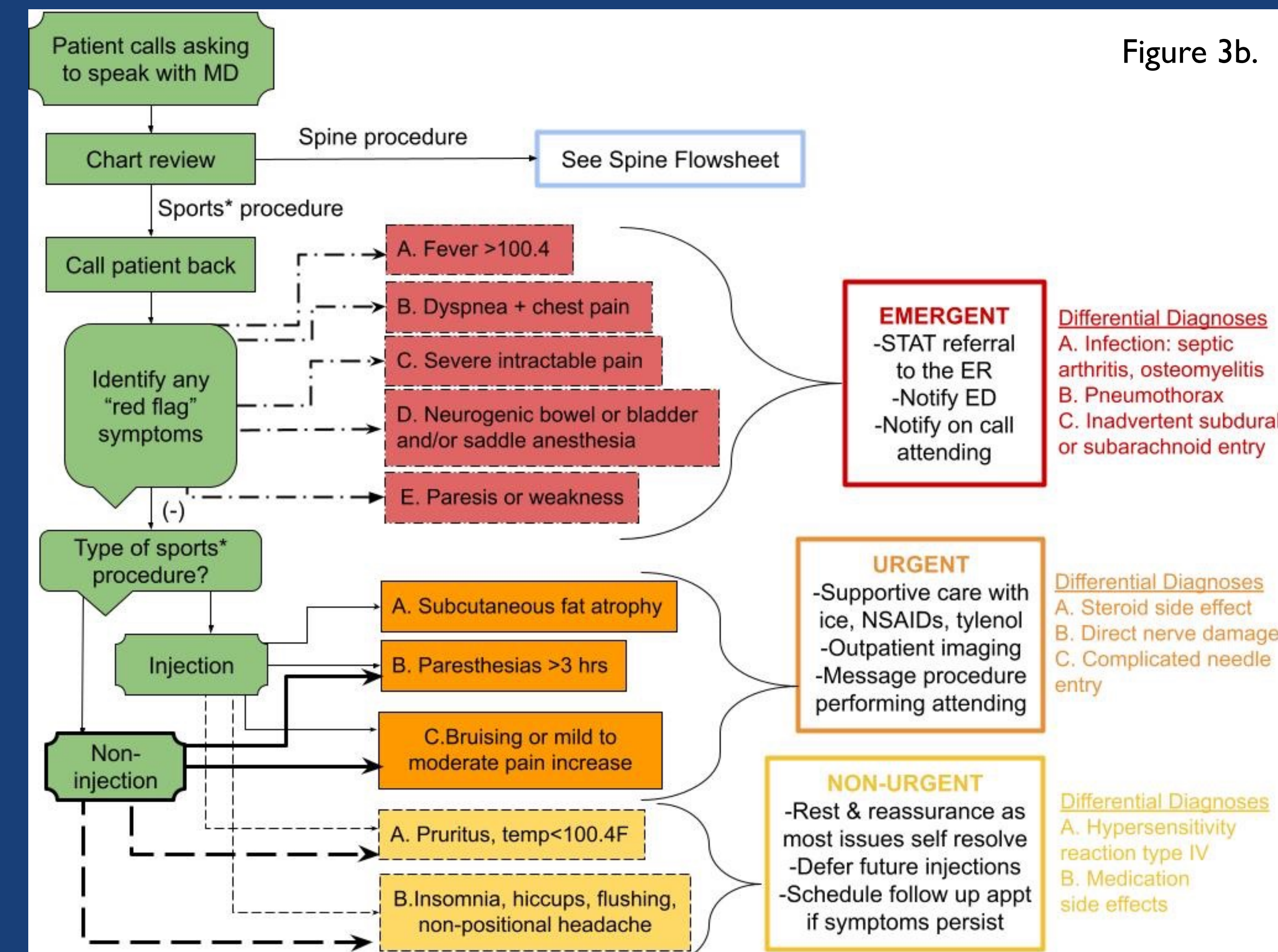
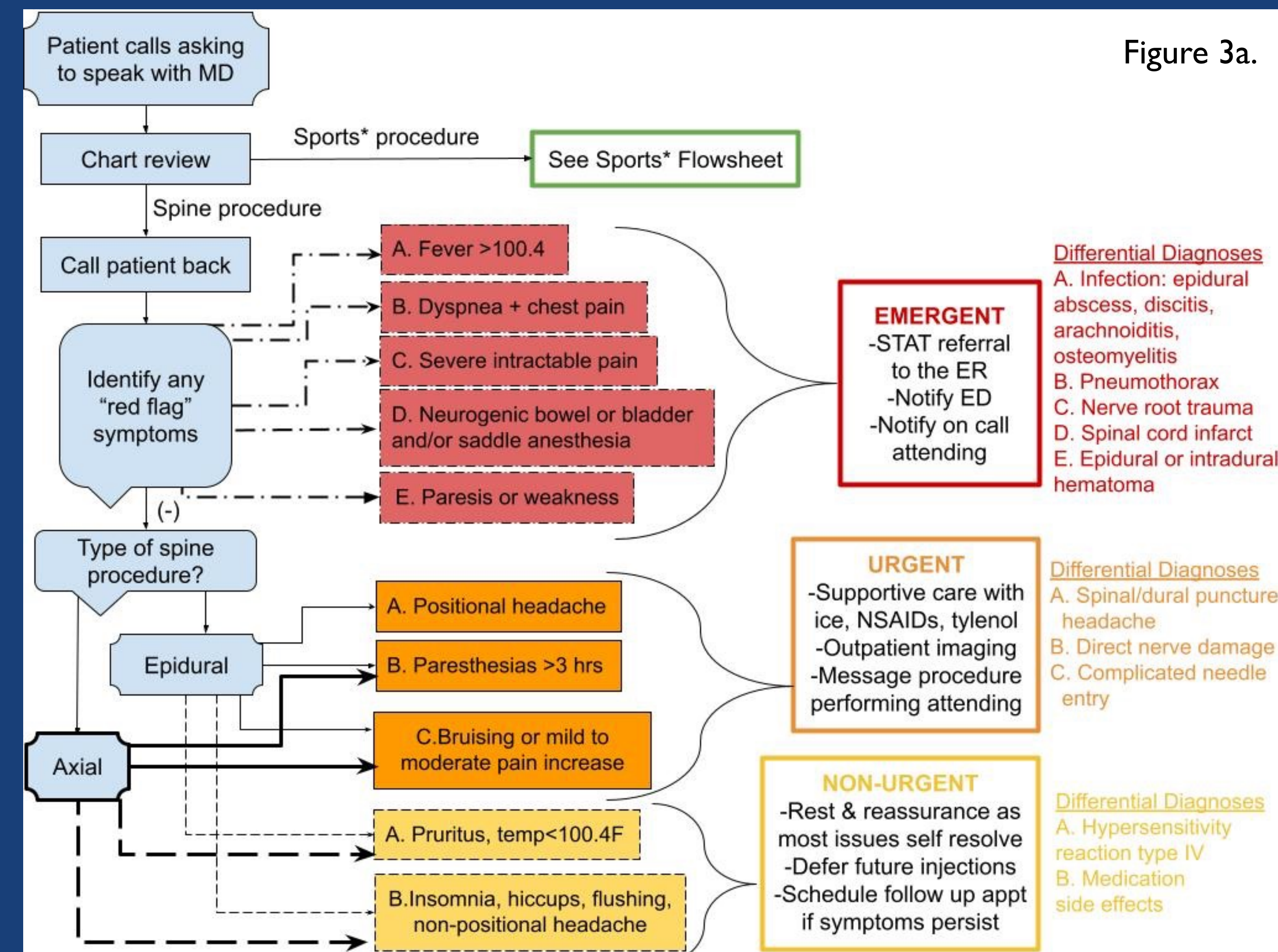
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Resident Management of Outpatient Sports & Spine Emergencies: A Quality Improvement Project

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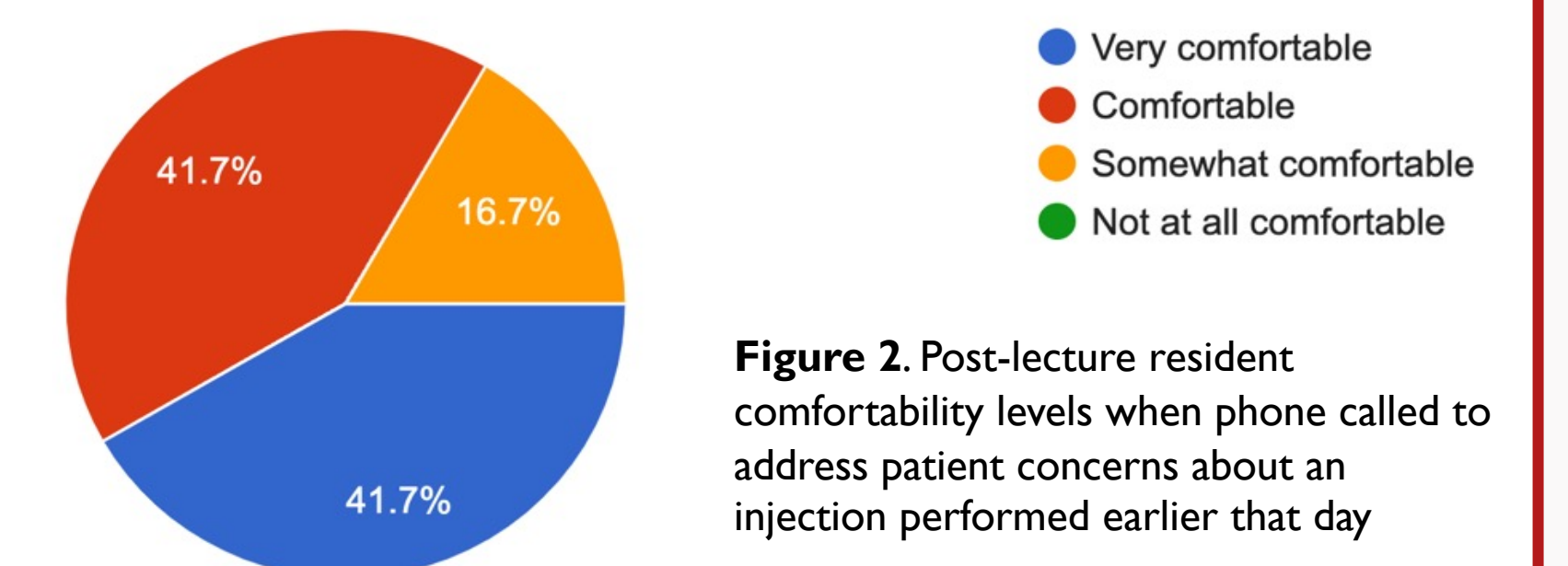
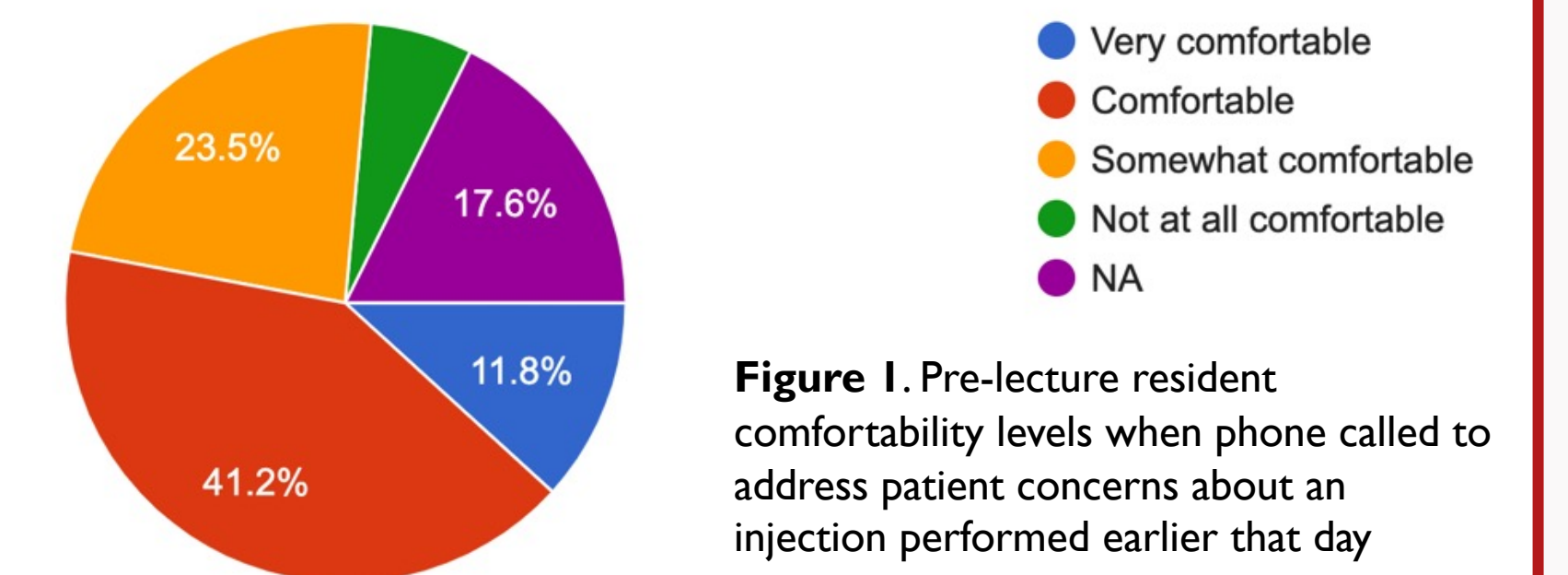
The interim results of this quality improvement project show that providing an educational lecture on the adverse outcomes of spinal and peripheral joint injections improves the reservoir of knowledge and resident comfortability in triaging patient concerns post-procedure. Additionally, the interim results demonstrate it is clinically relevant for residents to comfortably know how to triage patient concerns into emergent, urgent, and non-urgent symptoms via telehealth.



Figures 3a and 3b. Resident triage flowsheet based on procedure class and presenting symptoms.
*Sports procedures includes joint aspirations, dry needling, trigger point injections with local anesthetic, tenotomy or barbotage, extracorporeal shock wave therapy, and peripheral injections with corticosteroid, platelet rich plasma, hyaluronic acid, local anesthetic or dextrose

RESULTS

- The median number of calls received by residents during the past academic year was 4-5, while the mean number of calls received was greater than 5
- The results of the survey revealed that the majority of injections were related to spinal procedures
- After the educational intervention, there was a 30.3% increase in the percentage of survey responses feeling comfortable or very comfortable in triaging patient concerns, from 53% pre-lecture to 83.3% post-lecture
- The post-lecture quiz also demonstrated an increase in resident knowledge; however, it was not statistically significant



DISCUSSION

- Limitations to this study include the population sample, restricted time frame, and possibility of Hawthorne effect
- The project plans to reassess resident's comfort level and knowledge at 12 months follow up
- The interim results of the quality improvement project demonstrate that an educational lecture at the start of the academic year improves the reservoir of knowledge and our residents' comfortability in triaging patient concerns post-procedure via telehealth



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