Background

- Burn injuries in children under the age of 5 years accounted for 19% of all burn injury in the United States.
- Improvements in management decreased overall mortality rate from burns to less than 5%.
- However, pain management is still a challenge.
- There is a lack of studies on management of minor burns in the pediatric population.
- This study aims to identify pain medications given to patients admitted to our hospital and to evaluate the level of associated pain.

Results

- 129 patients met selection criteria.
- Table 1 demonstrates study population characteristics.
- The pediatric pain service was consulted for 17.1% (n=22) of patients.
- Of these, 86.4% (n=19) received patient controlled analgesia (PCA).
- Only 10.9% (n=14) of patients received another IV pain medication in addition to oral analgesia if they did not receive a PCA.
- Mean pain score was 1.6 (SD 2.2, on pain scale of 0-10) and median pain score was 0 (IQR 3).

Discussion

- Minority racial groups were over-represented in our cohort.
- Analysis of the cohort of patients revealed relatively low pain scores without a detectable difference in pain scores among various modes of analgesia.
- This is likely due to the high proportion of pediatric patients that are admitted with relatively minor burns (<5% total body surface area).
- Oral analgesics were found to be as efficacious as IV analgesics.
- Limitations include the retrospective nature of the study and short duration of time analyzed.
- Future studies of its kind should utilize a larger population to detect any appreciable differences in pain scores.

Methods

- This is a retrospective cohort study with examination of data obtained from January 1 to August 31, 2014 at The Johns Hopkins Charlotte R. Bloomberg Children’s Center.
- After obtaining IRB approval, patients were identified through a database of pediatric burn patients.
- Patients were eligible to be included in the study if they were ≤18 years of age and sustained a burn injury.
- Pain scores utilized age-appropriate, validated pain scales such as Faces, Legs, Activity, Cry, Consolability (FLACC) scale, Wong-Baker FACES scale, or the Numeric Rating Scale.

References

- Forjush SN. Burns 2006; 32(5):529
- Centers for Disease Control. WISQARS 2009. webappa.cdc.gov/sasweb/ncipc/mortrate9.html