Burn Specialty Specific Advocacy, What Can You Do for Injury Prevention?

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Conclusion

- As experts in our respective fields, we need to be aware of even small things we can do to promote general health and well being.
- We are responsible for not only care of patients, but can also advocate for positive change.

What is Safe Temperature?

EXPOSURE TIME AT GIVEN TEMPERATURES THAT CAUSE DEEP SECOND-DEGREE BURN INJURIES IN ADULTS

Temperature	Exposure Time
120° F (49° C)	9 minutes
124° F (51° C)	2-6 minutes
125° F (52° C)	2 minutes
131° F (55° C)	20-30 seconds
140° F (60° C)	5-6 seconds
151° F (66° C)	2 seconds
158° F (70° C)	1 second
160° F (71° C)	Instantaneously

Source: Plumbing Engineering & Design Standard 13: Hot Water Temperature and Control (2011) American Society of Plumbing Engineers

Methods

- Temperature measured using a Taylor Market Candy Thermometer
- Selected tap is run at full hot water for 2 minutes.
- Collecting vessel is put in the stream of water while it continues to run and the temperature measured until it stabilizes.
- Date, time, location and temperature are recorded and evaluated.

Significance

- Interestingly, all temperatures measured in the health care facilities were within safe ranges
  - Administrative areas had lower lower temperatures
  - Prevention of transmission of infection must be balanced with safety
- Elevated temperature measurements were found at our Burn conference hotel and provider homes.

Results

- Temperatures were recorded in Burn Unit, Operating room and administrative areas of our hospital, as well as at homes of Burn Care providers and the Hotel of our recent Burn National Meeting.
- Observed temperatures ranged from 104.1^0 F to 132.9^0 F with an average temperature noted at 114.8^0 F.
- 3/20 observations were above 120^0 F

Lessons Learned

- In the field of Burn Care, there are many sources of injury commonly found around the house, not the least of which is scolding injury from hot water.
- Tap water at elevated temperature can cause significant injury.
- Recognizing the potential to protect our own community by educating on the risks of scalding in the household, we have undertaken an effort to measure water temperatures and let stakeholders know the significant values.