Trends in Offending Medications in Stevens-Johnson Syndrome/Toxic Epidermal Necrolysis in a Large Academic Burn Center

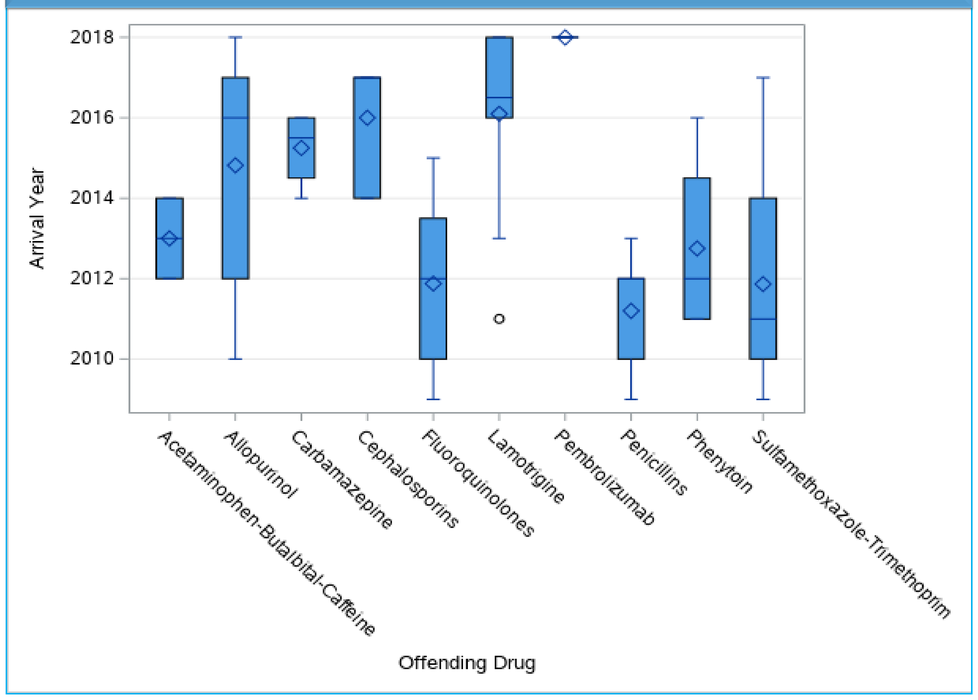
Stevens-Johnson syndrome/toxic epidermal necrolysis (SJS/TEN) is a rare, severe mucocutaneous eruption often caused by medications and resulting in diffuse epidermal detachment.

The medical community may benefit from increased awareness of the emerging trends in causative agents of SJS/TEN.

DATA SOURCE and RESULTS

- All patients admitted with biopsy-proven SJS, SJS/TEN overlap, and TEN between January 1, 2009 and December 31, 2018, whose sole triggering medication was confidently identified in their medical charts, were eligible for inclusion
- Demographics, comorbidities, diagnosis, treatment, and inciting agents were evaluated
- Statistical analysis was performed with SAS version 9.4 (SAS Inc., Cary, NC)
- One hundred sixty-eight patients had biopsy-proven SJS, SJS/TEN overlap, or TEN
- One hundred three biopsy-proven cases had a single identified offending drug
- Thirty-six percent had been exposed to sulfamethoxazole-trimethoprim (SMX-TMP), 11% to allopurinol, and 10% to lamotrigine
- Trends in culprit drug by year are shown in Figure 1
- The majority of SMX-TMP and penicillin cases occurred early in the period of study; lamotrigine and pembrolizumab cases occurred more recently

Figure 1: Trends in Culprit Drugs



Lessons Learned

- SMX-TMP once accounted for a large portion of SJS and TEN cases at our center. In recent years, lamotrigine has become a more common offending drug, prescribed in our cohort for psychiatric indications.
- In 2018 we treated three patients with TEN due to immunotherapy (pembrolizumab) for metastatic or unresectable cancer. Paralleling the increasing use of immunotherapy has been a rise of immune-related adverse events, including severe skin toxicities.
- Further study is warranted to determine what can be done to prevent SJS/TEN from occurring in patients treated with these drugs.

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