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Title: Characterization of medical malpractice lawsuits relating to dermatologic emergencies in the inpatient and emergency setting

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Inpatient involvement of dermatologists improves patient outcomes and medical costs, yet little information is available regarding dermatologists' potential to alleviate legal burdens facing hospitals and physicians in the hospital setting.[1-4] We sought to characterize malpractice lawsuits filed against physicians or hospitals for dermatologic emergencies in the inpatient or emergency setting.

In September 2019, we conducted a search using a national legal research database, Lexis Advance®. The Verdict and Settlement Analyzer tool provides a summary of individual lawsuits filed in trial courts in state and federal jurisdictions.

To be included, the lawsuit must describe a plaintiff claim originating from an inpatient or emergency department occurrence directly related to a dermatologic emergency. All necrotizing fasciitis, sepsis, herpes encephalitis, toxic shock syndrome, and systemic mycoses lawsuits described prominent cutaneous manifestations in relation to allegations of improper diagnosis.

From the years 1987 to 2018, 158 lawsuits met inclusion criteria. Stevens-Johnson syndrome/toxic epidermal necrolysis (SJS/TEN) was the most common diagnosis, constituting 46% of the total lawsuits (Table I). SJS/TEN had the largest total monetary recovery of $153,367,500 with median total recovery of $900,000; notably, a SJS/TEN multi-malpractice lawsuit in 2012 resulted in a plaintiff verdict of $121,000,000.

Delayed diagnosis, misdiagnosis, or failure to diagnose was the cause of 77% of the lawsuits. The remaining lawsuits were allegations of inappropriate medical management. Wrongful death was the injury for 48% of the lawsuits that defined an injury; the remaining injuries were long term health complications or unspecified.

Hospitals were defendants in 68% of the lawsuits – 37% of those were academic hospitals. Of identified physician specialties, emergency medicine was named most commonly (Fig 1). Fifty-four lawsuits originating from an inpatient setting named the hospital exclusively or did not explicitly identify the

specialties involved. Fifty-eight lawsuits named only the physicians and did not specify the medical specialty. Dermatologists were never identified as defendants. Only 7 cases described dermatology involvement in the care of the plaintiff - 6 of those lawsuits occurred in academic hospitals.

Our findings likely underreport the true incidence of malpractice legal claims. Claims settled outside of the court are not included in Lexis Advance®. However, this study describes the diagnoses and specialties involved in lawsuits that reach court. Seventy-seven percent of dermatology-related lawsuits were due to improper diagnosis. Hospitals, especially ones that do not employ a dermatologist, are at considerable financial risk when optimal inpatient dermatology care is not available. Furthermore, specialties that commonly interface with dermatology are at risk when operating outside their scope of typical practice for diagnosis and management of dermatologic disease.

Studies primarily assessing non-emergency inpatient dermatology consults have shown dermatologist involvement leads to a change in the initial diagnosis in 45% to 80% of patients, shorter length of stay, and decreased hospital costs.[1-4] Our study underlines the value inpatient dermatology has in protecting hospital systems and non-dermatologists from legal and financial harm in addition to protecting patients. Additional research is required to further describe the legal, financial, and health benefits of inpatient dermatology involvement.

Table I. Associated diagnoses, legal outcomes, and monetary recovery from lawsuits originating

from an inpatient or emergency department occurrence related to a dermatologic emergency

Diagnosis	No. of plaintiff verdicts or settlements	No. of defendant verdicts or other*	Total recovery, $	Median recovery, $
SJS/TEN†	27	46	153,367,500	900,000
Necrotizing Fasciitis	6	17	8,321,495	1,405,000
Sepsis	11	8	9,065,000	500,000
Herpes Encephalitis	5	2	21,580,000	3,080,000
Varicella	2	5	1,685,000	842,500
RMSF	4	-	3,691,733	645,867
Kawasaki Disease	1	3	2,510,000	2,510,000
Vasculitis	1	1	15,922,000	15,922,000
DRESS Syndrome	1	1	880,000	880,000
Toxic Shock Syndrome	1	1	800,000	800,000
SLE	1	1	175,000	175,000
Severe Psoriasis	1	1	-	-
HSP	-	2	-	-
Erythroderma	-	2	-	-
Systemic Mycoses	1	-	1,850,000	1,850,000
Rheumatic fever	1	-	700,000	700,000
Measles	1	-	485,000	485,000
SSSS	1	-	-	-
Syphilis	-	1	-	-
Sweet's Syndrome	-	1	-	-
Pyoderma Gangrenosum	-	1	-	-
Total	65	93	221,032,728	

SJS/TEN, Stevens-Johnson syndrome/toxic epidermal necrolysis; *RMSF,* Rocky Mountain spotted fever; *DRESS,* Drug Rash with Eosinophilia and Systemic Symptoms; *SLE*, Systemic lupus erythematosus; *HSP*, Henoch-Schönlein purpura; *SSSS,* Staphylococcal scalded skin syndrome

* "Other" is defined as case dismissal, summary judgment, discontinuance, transfer, or unspecified

† A 2012 SJS/TEN case from the New York Supreme Court 12th Judicial District resulted in a $121,000,000 plaintiff verdict. The plaintiff claimed failure to promptly diagnose and treat SJS/TEN led to cardiopulmonary arrest and permanent brain damage. Monetary compensation was granted for past and future medical costs, pain and suffering, and lost earnings. Three hospitals and a neurologist were named as defendants.

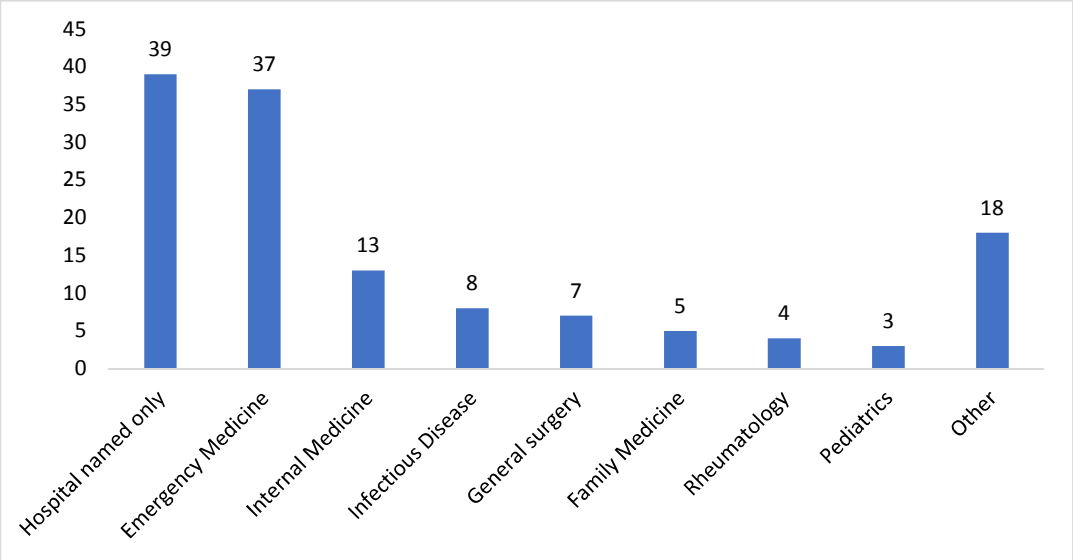

Fig 1. Number of defendants named in a lawsuit related to a dermatologic emergency in the inpatient or emergency department setting. "Other" includes neurology, neonatology, nephrology, cardiology, critical care, general surgery, urology, and obstetrics/gynecology.

Abbreviations:

SJS/TEN, Stevens-Johnson syndrome/toxic epidermal necrolysis

RMSF, Rocky Mountain spotted fever

DRESS, Drug Rash with Eosinophilia and Systemic Symptoms

SLE, Systemic lupus erythematosus

HSP, Henoch-Schönlein purpura

SSSS, Staphylococcal scalded skin syndrome

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Figure legend

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Table legend

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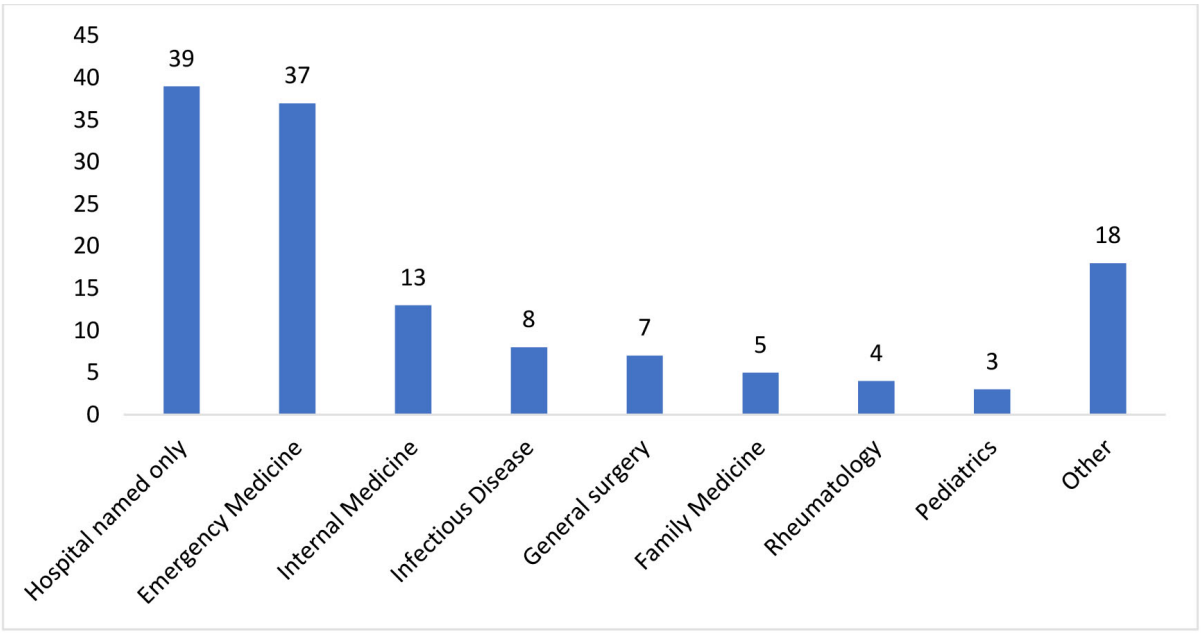
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Hospital named only
Emergency Medicine
Internal Medicine
Infectious Disease
General surgery
Family Medicine
Rheumatology
Pediatrics
Other