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Robert Folzenlogen MD

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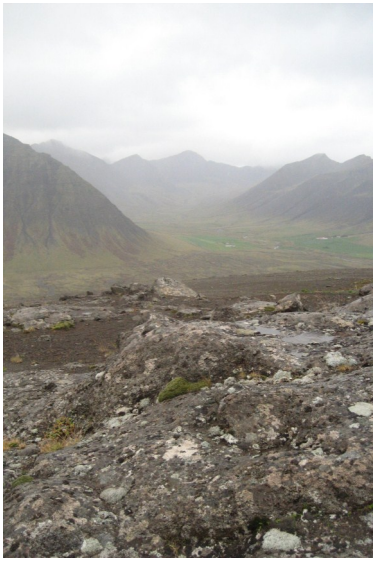
## Hospitalist Update

### Academic Hospital Medicine: A Perfect Storm

Robert Folzenlogen MD



The widespread development of academic hospitalist programs over the past two decades has produced a number of benefits: to patients, to learners, to hospital administrators and to academic medicine in general. Learners (residents and students) receive their ward-based education and supervision from physicians who have maintained a broad perspective on the care of inpatients. Furthermore, since the hospitalist staff is generally of modest size, the residents develop a more personal relationship with their attendings than often occurred with the past model of rotating staff coverage. Since the hospitalists spend a large portion of their time on the wards, they become familiar with the logistics of inpatient medicine, working closely with case managers, social workers, nurses and other ancillary staff; this has led to more efficient care, shorter hospital stays and, arguably, better outcomes, all of which benefit the hospital. Finally, physicians who select academic hospital medicine are motivated by an interest in teaching, research or the administrative aspects of health care education and delivery; as a result, they demonstrate a high level of participation in clinical teaching programs, quality and safety projects, utilization review oversight, systems development and other activities vital to a healthy academic center.

In recent years, three factors have converged to threaten the stability and viability of academic hospital medicine. First, resident duty restrictions have significantly curtailed their involvement in the care of a growing inpatient population. Second, academic hospitals, facing the same financial pressures that confront private institutions, have spread their wings, buying up other facilities, encouraging the development of novel delivery systems and making every effort to expand their inpatient census. Finally, the market for hospitalists has exploded and, as demand outpaces supply, these physicians are lured to the private sector by a combination of attractive salaries and limited work hours.

The expanding need for non-teaching inpatient services is pulling academic hospitalists away from their focus on teaching, research and administrative work and is requiring them to provide 24/7 coverage that, in the past, was handled by trainees. (continued)

(continued) At the same time, academic institutions cannot keep pace with the lucrative reimbursement offered by private hospitals and, as a result, their ability to attract and retain academic hospitalists is significantly compromised. Many, if not most, academic medical centers have resorted to hybrid systems, requiring that their hospitalists perform a mix of teaching and non-teaching duties; while the "uncovered" work may be reimbursed at a higher rate, this solution is, in the end, unsatisfactory for all involved. Those truly interested in the academic aspects of medicine find that the non-teaching activity occupies too much of their time while those attracted to clinical work resent the expectation that they participate in a broad range of teaching and administrative programs and committees.

In my opinion, the only way to maintain a vibrant academic hospitalist program is to offer protection from the non-teaching services. Our ambulist colleagues, who have long combined private and teaching activities, may scoff at this suggestion but, then again, clinic is not a 24/7 commitment; night, holiday and weekend emergencies are directed to the hospital. Academic hospitals must accept the private model when it comes to staffing their non-teaching services; of course, this will require salaries and schedules that are competitive with those offered in the private sector. Time will tell if academic institutions are willing and able to meet this challenge or whether academic hospitalists will have played a fleeting role in the history of medical education. At this point, we appear to be an endangered species.

Your comments regarding this important issue are solicited and, with your permission, will be published in future issues of *Missouri Hospitalist*.

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## HOSPITAL MEDICINE VIRTUAL JOURNAL CLUB

### WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

**Abtracts & Full Links from recent journals of interest to Hospitalists**

http://beckerinfo.net/JClub

## CASE OF THE MONTH

Venkatesh Ariyamuthu MD & Carla Dyer MD

A 58 year old female was referred for management of rapidly worsening anemia, cellulitis of the neck and a diffuse rash. Eight days prior to arrival, the patient woke with an area of redness and swelling under the chin which she suspected was due to an insect bite. Swelling and redness progressed rapidly and were associated with pain and low grade fevers. She was admitted to her regional hospital for intravenous antibiotics for treatment of cellulitis. After a brief discharge from the hospital, she was readmitted with the return of fevers and a diffuse rash. During that admission, her hemoglobin was noted to drop from 14.6 to 5.3 over a two day period. She was transferred to tertiary care for further evaluation, treatment and specialty consultation.

Her physical exam was remarkable for an exquisitely tender, dark, violaceous patch on the anterior neck with associated erythema and induration extending to the upper chest. Skin exam also revealed a diffuse macular rash and pustular lesions on her extremities, trunk and abdomen.

Laboratory results on admission revealed a normocytic anemia (hemoglobin 5.3, MCV 91.8), reticulocytosis (6.2%), elevated LDH (684) and indirect hyperbilirubinemia (2.5). Her WBC was normal. Direct Coombs test for C3 was positive. Blood cultures were negative. A peripheral smear showed polychromasia, erythrocyte clumping,, spherocytes and and erythrophagocytosis. A CT of her neck revealed subcutaneous swelling but no developing abscess.

**DISCUSSION:** In collaboration with dermatology and hematology consultants, a diagnosis of brown recluse spider bite causing Coomb's positive hemolytic anemia was made and the patient was started on oral prednisone therapy; this resulted in rapid resolution of her neck swelling and erythema. Antibiotic therapy was discontinued. Following transfusion with 4 units of PRBCs, her hemoglobin remained stable at 10 g/dL. At a follow-up appointment, two weeks later, her neck swelling and generalized rash had resolved.

Brown recluse spiders are endemic to the Midwest, South-central and Southwestern regions of the United States. Recluse spider bites cause a range of local effects, including significant tissue necrosis. However, the systemic effects of the venom, known as loxoscelism, are rare in adults. As in our case, hemolytic anemia may develop. Erythrophagocytosis is usually observed in immune hemolytic anemia, especially cold hemolytic disorders, but can also occur in non-immune hemolytic diseases like sickle cell anemia and naphthalene poisoning.

Hemolytic anemia associated with brown recluse spider venom is generally described as a Coomb's negative process, secondary to the lytic action of sphingomyelinase; only a few cases of Coomb's positive hemolytic anemia secondary to a brown recluse spider bite have been reported in the literature. However, venom can activate both IgG and complement by activation of endogenous metalloproteases which cleave RBC glycophorins [1]. Dapsone, corticosteroids, hyperbaric oxygen, cyproheptadine and electric shock therapy have all been described as effective therapies in the literature, though randomized trials are lacking [2,3]. Our patient responded well to systemic corticosteroid therapy; local effects of the venom may mimic bacterial cellulitis but antibiotics are not indicated unless secondary infection develops.

**REFERENCES:**

1. Eichner, Edward R., Spider bite hemolytic anemia, positive Coomb's test, erythrophagocystois and leuko-erythroblastic smear, Am J Clin Pathol 1984; 81:683-687
2. Lane, D.R. & J.S.Youse, Coomb's positive hemolytic anemia secondary to brown recluse spider bite: a review of the literature and discussion of treatment, Cutis 2004; Vol 74
3. Swanson, D & R.S. Vetter, Bites of brown recluse spiders and suspected necrotic arachnidism, NEJM 2005; 352:700-707

## FROM THE JOURNALS

EMILY COBERLY MD

The following articles should be of interest to Hospitalists:

*Postpolypectomy bleeding in patients undergoing colonoscopy on uninterrupted clopidogrel therapy*

Singh, M et al., Gastrointest Endosc, May 2010; 71(6):998-1005

In a series of 147 patients undergoing colonoscopy with polypectomy, increased risk of bleeding was confined to patients taking a combination of Plavix and ASA or other NSAID and not in individuals taking Plavix alone.

*Effects of combination lipid therapy in type 2 diabetes mellitus*

Ginsberg, HN et al., NEJM April 2010; 362(17):1563-1574

In diabetic patients, the combination of fenofibrate and simvastatin did not reduce the risk of cardio-vascular disease compared to simvastatin alone

*Silent pulmonary embolism in patients with deep venous thrombosis: a systematic review*

Stein, PD et al., Am J Med, May 2010; 123(5): 426-431

Silent pulmonary embolism was diagnosed in 32% of patients with DVT

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## ID CORNER

WILLIAM SALZER MD

MORE ON CLOSTRIDIUM DIFFICILE!

Gerding, DN and S Johnson, Management of Clostridium difficile infection: Thinking inside and outside the box

Clin Infect Dis 2010; 51: 1306-1313

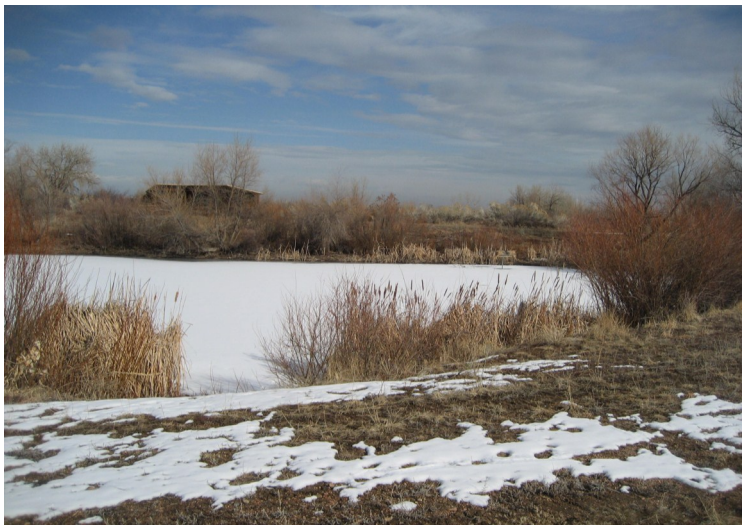
http://www.journals.uchicago.edu/doi/full/10.1086/657116

**MISSOURI HOSPITALIST SOCIETY**

University of Missouri
Division of General Internal Medicine DC043
1Hospital Drive
Columbia, MO 65212

folzenlogenr@health.missouri.edu

## MISSOURI HOSPITALIST CALENDAR



**42nd Annual Cardiovascular Conference**, American College of Cardiology, Snowmass, Colorado, January 10-14; www.cardiosource.org/meetings.aspx

**American Gastroenterology Association Clinical Congress: Best Practices 2011**, January 14-15, Miami, Florida; www.gastro.org/register_congress

**Mechanical Ventilation**, American College of Chest Physicians, February 25-27, Northbrook, Illinois; register via 800-343-2227 or online: www.chestnet.org/accp/events/mechaniical-ventilation

**Renal Complications in the ICU**, Society of Critical Care Medicine, March 10-11, 2010, Atlanta, Georgia; for information and registration visit: http://www.sccm.org/Conferences

**2011 American Geriatrics Society**, May 11-14, Washington, DC; register online via www.americangeriatricssociety.org/annual_meeting

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Please direct all comments, ideas and newsletter contributions to the Editor:

Robert Folzenlogen MD, folzenlogenr@health.missouri.edu

**Please forward this newsletter to Hospitalists that you might know!**