

Adam Brenner, MD, Robert Rogers, MD

From the University of Maryland Medical Center, Department of Emergency Medicine, Baltimore, MD.

0196-0644/\$-see front matter

Copyright © 2010 by the American College of Emergency Physicians.

doi:10.1016/j.annemergmed.2009.08.021



Figure 1. Painful skin rash and discoloration appearing over lower extremity over previous day.



Figure 2. Extension of rash involving both lower extremities. Used with permission of Adam Brenner, MD, University of Maryland Medical Center, Department of Emergency Medicine, Baltimore, MD.

[Ann Emerg Med. 2010;56:71.]

A 47-year-old woman presented to the emergency department (ED) with a rash developing on her thighs, knees, and left buttock during the previous day, with significant pain throughout the affected areas (Figures 1 and 2). She presented 1 day after discharge from the medical intensive care unit for hypertensive emergency, where she was diagnosed with bilateral lower-extremity deep venous thrombosis; she began receiving intravenous heparin and received an initial dose of warfarin 10 mg. Two days later, warfarin was decreased to 7.5 mg daily; she was discharged 4 days after initiation of therapy, with an international normalized ratio of 4.6. On presentation to the ED, international normalized ratio was 6.9.

For the diagnosis and teaching points, see page 81.

To view the entire collection of Images in Emergency Medicine, visit www.annemergmed.com

- The admitting physician is responsible for care of the patient after they have accepted responsibility for the patient's admission, regardless of the patient's physical location within the hospital.
- When an emergency physician is compelled to write orders that appear to extend control and responsibility for the patient beyond treatment in the emergency department to the inpatient setting, it is understood that the admitting physician retains responsibility for providing inpatient care.
 - However, in the interest of patient care and safety, an emergency physician may be compelled to write transition orders.
 - These transition orders may include essential treatment and assessment parameters required before preparation of suitable admission orders.

Hospital and emergency department policies should clearly delineate responsibility for writing admission or transition orders. Policies must define an appropriate period of time for the admitting physician to see the patient and prepare admission orders.

Revised and approved by the ACEP Board of Directors October 1993; and revised titled, "Writing Admission and Transition Orders" April 2010

Reaffirmed by the ACEP Board of Directors April 1992; October 1997; and October 2001

Originally approved by the ACEP Board of Directors titled, "Writing Admission Orders" October 1989

doi:10.1016/j.annemergmed.2010.04.025

IMAGES IN EMERGENCY MEDICINE

(continued from p. 71)

DIAGNOSIS:

Warfarin-induced skin necrosis. Warfarin-induced skin necrosis occurs in 0.01% to 0.1% of patients who begin receiving warfarin therapy. In 93% of cases, symptoms begin 3 to 6 days after initiation of therapy, but cases have been reported as late as 18 months.¹ Diagnosis is made clinically, with rash, usually appearing over fatty areas, most commonly over the breasts, followed by the thighs/buttocks (Figures 1 and 2).² It is more common in middle-aged, perimenopausal women with venous thromboembolism.² Seventy-five percent of patients with warfarin-induced skin necrosis who begin receiving treatment for deep venous thrombosis or pulmonary embolism may have baseline-depleted protein C and S activity caused by consumption by the thrombotic process.¹ Pathophysiology may also involve large loading doses of warfarin, thrombosis of superficial dermal capillaries, and inherited protein C and S deficiencies.² Treatment entails discontinuation of warfarin and replenishing vitamin K-dependent factors, accompanied with debridement, grafting, or amputation as needed for skin necrosis. Heparin should be used for long-term treatment of thromboembolic disease.^{1,2}

REFERENCES

1. Abdul-Jabar HB, Geroulakos G, Philpott N, et al. Warfarin-induced skin necrosis: a case report. *Clin Appl Thromb Hemost.* 2006;12:101-104.
2. Chan Y, Valenti D, Mansfield AO, et al. Warfarin induced skin necrosis. *Br J Surg.* 2000;87:266-272.