

Medical-surgical co-management systems

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Story from the Front Lines:

A man in his 30s with a history of paraplegia was transferred from OSH for management of large sacral decubitus ulcer and osteomyelitis. He required antibiotics and needed debridement. Colleagues in orthopedics were willing to debride the patient's osteomyelitis but would require an immediate skin flap. However, plastic surgery was concerned for risk of flap failure in the setting of incontinence and first recommended a colostomy. He was frightened by the thought of any type of surgery and was initially resistant to the idea. The patient was informed about the potential benefits of the colostomy as it was needed prior to treating his infection as well as improvement in quality of life. After much thought and discussion with his family and medical team, he decided to undergo the procedure but with interest in re-anastomosis at a later time.

The procedure went without any complications. Plastic surgery consultants explained that creating a flap would not be a viable option due to the patient's poor nutritional status and recommended follow up as an outpatient in 6 weeks. Otherwise, they suggested orthopedics use a vacuum dressing after debridement as an alternative option. That information was relayed to orthopedics consultants but they were reluctant to proceed with surgical debridement, explaining that any exposed bone, even with a vacuum-assisted closure, might become re-infected. A PICC line was placed and after a month of being hospitalized, the patient was discharged home with prolonged antibiotics.

Teachable Moment:

Sacral decubitus ulcers complicated by osteomyelitis are associated with increased morbidity and mortality rates necessitating treatment. Management includes surgical debridement for cure followed by tissue reconstruction along with antimicrobial therapy. Septicemia is a common cause of pressure ulcer-associated deaths. However, no specific treatment guidelines have been promulgated for osteomyelitis [1]. Patients who are treated with combined medical-surgical approach fared better than those just treated with antibiotic therapy alone in regards to hospital readmission [2]. Admission for this patient was warranted for antibiotic treatment and surgical evaluation for possible intervention.

In this case, the patient was harmed by his prolonged hospital stay and the attendant risk of nosocomial infection [1], which could have been prevented from better coordination of care and improved communication with our consultants. The problem with this situation was the difference in opinion between surgical subspecialties resulting in uncoordinated care. Having to relay all of the information between our consultants made coordinated care much more difficult to achieve. This patient may have benefited from a co-management system that could have led to better consultant communication and a better outcome for the patient.

Co-management is a system that involves shared management between an internist and surgeon. It has been shown to decrease length of stay, reduce hospital costs, 30-day readmissions, and the perception of health care quality provided by health professionals [3]. However, it has minimal effects on hard clinical outcomes and satisfaction [4]. In this particular situation, this system would allow the orthopedics, plastic surgery, and general surgery to agree on goals of care while the internist communicates with infectious disease. Regardless of the type of management, this patient would have gained the most benefit if the consultants agreed on a course of action and goals of care. This may have led to a shorter hospital stay as the patient's hospital course was mostly spent waiting on a plan of action between all subspecialties.

References:

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