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Urokinase and dialysis therapy

To the Editor: In a recent review by Schwab and Beathard on hemodialysis catheters, the authors did not acknowledge the value of systemic urokinase infusion to open clotted catheters [1]. Although they admit that the infusion appears to be safe and less expensive than either fibrin sheath stripping or catheter exchange, they also state that the ". . . primary disadvantage lies in the fact that [the infusion] requires four to six hours of hospital observation to facilitate payment for the urokinase."

As a matter of fact, hospitalization for administration of urokinase is not necessary for reimbursement. We have used urokinase in our outpatient facility for several years and recently published our experience [2]. Our protocol uses two to three hours of infusion of 250,000 IU of urokinase during outpatient hemodialysis. Heparin is used together with urokinase. In addition, the method is less expensive than catheter stripping or replacement. A major advantage of the method is that the patient does not miss dialysis treatment because blood flow is usually restored. The patient thus avoids hospitalization and the inconvenience related thereto. Outpatient urokinase is reimbursed in our region (revenue code # 636, HCPCS #J3367), and there is no reason for the lack of reimbursement in other regions, as the method saves money.

Unfortunately, Abbott Laboratories, Inc. (North Chicago, IL, USA), the only manufacturer of urokinase, has difficulty in providing a sufficient amount of the drug at present. Hopefully, these difficulties are only temporary and urokinase may be used on an outpatient basis in the near future.

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Reply from the authors

In response to Dr. Twardowski's concern, we quote directly from our review. "Recently, Twardowski has reported a series of high-dose urokinase infusions for catheter dysfunction performed during the hemodialysis treatment itself. These urokinase protocols hold promise and are undergoing clinical trials at several centers" [1]. We believe this continues to accurately reflect the state of the art. While the study by Twardowski is indeed promising [2], we believe further studies should be done to confirm the safety and efficacy of this procedure prior to recommending its wholesale adoption. Multiple confirmatory clinical trials were actively underway prior to the removal of urokinase from the United States market.

Regional Medicare intermediaries exercise broad discretion in determining appropriate procedures for reimbursement. In our areas of practice (North Carolina and Texas), reimbursement for high-dose urokinase performed as an infusion during the hemodialysis treatment in an outpatient hemodialysis facility had not been approved. The question is at the current state moot, because there appears to be little likelihood that urokinase in its present form will return to the North American market in the near future. We acknowledge the importance of thrombolytic therapy applied in the dialysis unit as opposed to any therapy performed in the hospital. Indeed, confirmatory studies of Dr. Twardowski's original observation were underway at both of our institutions prior to withdrawal of urokinase from the North American market.

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Histologic characteristics of sternoclavicular β_2-microglobulin amyloidosis

To the Editor: We have read with interest the study by Garbar et al [1]. In this large post-mortem study, the authors propose a staging for amyloidosis based on immunoperoxidase staining and on the analysis of clinical data. The authors, although aware of the cross-sectional design, concluded that macrophages are not required to form amyloid fibrils [1], supporting the view that macrophage infiltration is a secondary phenomenon. We drew a similar conclusion based on an ultrastructural