Esophageal Doppler Monitoring – Reimbursement Status

Background

In 2006, Deltex Medical submitted an application to the Centers for Medicare and Medicaid Services (CMS) to reverse a pre-existing national non-coverage decision for esophageal Doppler monitoring (EDM). The original decision pre-dated the release of Deltex Medical’s EDM technology.

As part of their review of esophageal Doppler guided fluid management, CMS commissioned a technology assessment from the Agency for Healthcare Research and Quality (AHRQ).

The technology assessment (TA) reviewed some 317 articles, including seven independently conducted, randomized controlled trials. The report was published by CMS on 14 March 2007 and is available at www.cms.hhs.gov/mcd/viewtechassess.asp?where=index&tid=45.

The technology assessment process grades the quality of evidence for a given technology as being 'strong', 'moderate', 'weak' or 'inconclusive'. Strong evidence is defined as "evidence supporting the qualitative conclusion is convincing. It is highly unlikely that new evidence will lead to a change in this conclusion".

The technology assessment for EDM concluded that in "patients undergoing surgical procedures with an expected substantial blood loss or fluid compartment shifts requiring fluid replacement" the clinical evidence for ODM was strong in respect of the following three statements:

1. "Doppler-guided fluid replacement during surgery leads to a clinically significant reduction in major complications";

2. "Doppler-guided fluid replacement during surgery leads to a clinically significant reduction in the total number of complications"; and

3. "Doppler-monitored fluid replacement leads to a reduction in hospital stay".

Based on the technology assessment and its internal review CMS determined that EDM is "reasonable and necessary" and should be covered for reimbursement in two important patient populations. In the announcement of the reversal of the pre-existing national coverage decision, CMS Acting Administrator Leslie V. Norwalk noted,

"Today's decision reflects CMS' commitment to using evidenced based approaches to provide Medicare beneficiaries with reasonable and necessary medical technologies as they evolve through innovation in the market place. As we developed this decision, we used the best available medical evidence -- in the form of randomized controlled clinical trials - to re-evaluate our position on this important non-invasive method of caring for patients in intensive care situations."

The following information provides further detail on the current status of coverage, coding and payment as they relate to EDM:
Coverage

On the 22 May 2007, the CMS issued a national coverage decision that stated:

“CMS will amend the NCD Ultrasound Diagnostic Procedures at section 220.5 of the NCD manual by adding:

“Monitoring of cardiac output (Esophageal Doppler) for ventilated patients in the ICU and operative patients with a need for intra-operative fluid optimization” to Category I, and deleting “Monitoring of cardiac output (Doppler)” from Category II.”

This means that from 27 May 2007 EDM is covered for:

• monitoring of cardiac output for ventilated patients in the ICU and;
• operative patients with a need for intra-operative fluid optimization

A copy of the CMS decision memo is attached to this document.

Coding instructions

On 22 September 2007 CMS issued transmittal R76NCD outlining how to code for the use of EDM and instructing their carriers to pay for esophageal Doppler monitoring as follows:

"When performed in a hospital setting for ventilated patients in the ICU or for operative patients with a need for ultrasound diagnostic procedures, the professional services only are separately payable when billed using CPT code 76999 with the modifier -26 to show professional component.

Such services, when globally billed in a hospital setting with code 76999, will be returned as unprocessable to the provider with a reason code such as 58 denoting "Payment adjusted because treatment was deemed by the payer to have been rendered in an inappropriate or invalid place of service."

When such services are billed in a hospital setting as technical services with the code 76999-TC, Medicare will deny the services with the 58 reason code and an M77 remark code to show "Missing/Incomplete/Invalid place of service."

When performed in an ambulatory surgery center (ASC), ultrasound diagnostic procedures are covered when performed by an entity other than the ASC if globally billed using code 76999, or the technical and professional components may be separately billed using codes 76999-TC and 76999-26, respectively.

Ultrasound diagnostic procedures professional services billed using codes 76999, 76999-TC, and 76999-26 are carrier-priced.”

This transmittal means that Medicare carriers have been made aware that claims will be made and makes it clear that such claims have to be paid, although the level of payment is left to the carrier to determine. The use of an unlisted procedure code (76999) is unusual and may make the initial claims process a little more complicated than is normally the case. However, CMS has instructed carriers to pay claims for physician services with respect to EDM under this code and for that reason 76999 is as valid as any other CPT code.
It should be noted that CMS has instructed carriers only to pay for the physician's component of undertaking EDM; there is no additional payment to hospitals to cover the cost of the technology. However, the published evidence demonstrates that the economic benefits that can be achieved through implementation of routine use of EDM substantially outweigh the cost of the technology.

Payment

The CMS transmittal states that reimbursement of EDM is carrier priced. The payment must reflect the amount of work involved.

One option for billing the service is to claim one occurrence of 76999 each time a patient is hemodynamically assessed and optimized using EDM. For each optimization ‘cycle’ the physician is required to place and focus the esophageal probe, establish a base-line value for key hemodynamic parameters (for billing purposes ‘stroke volume’ should suffice) and then deliver serial boluses of intravenous fluid until the stroke volume value change is less than ten percent, indicating that the patient is optimized. A subsequent fall in stroke volume of greater than ten percent would trigger the next optimization cycle and a further claim under 76999.

The number of optimization cycles is determined by the length and complexity of the surgical procedure and can have a wide range.

An example form for use in recording the patient’s stroke volume is included with this pack.

It should be noted that while CMS have instructed for this service to be paid, the carrier makes the final value determination. The above option is one suggested approach, but final responsibility for the procedure adopted remains with the person submitting the claim to CMS.

It is possible that your claim will be the first that your CMS carrier has processed for EDM and some discussion about the approach is therefore likely.

Private payers

Given that the CMS has covered this procedure, it is relatively straightforward to persuade private payors of the medical necessity of esophageal Doppler monitoring. It is therefore suggested that private payors are supplied with a covering letter, the CMS decision memo and the transmittal each time esophageal Doppler monitoring is submitted for payment.