Reviewer's report

Title: Outpatient red blood cell transfusion payments among patients on chronic dialysis

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Reviewer: Jiannong Liu

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This study tried to estimate the cost for outpatient transfusion among dialysis patients. This is an important topic to see how the economic burden shifts after the Medicare Prospective Payment System (PPS) for dialysis patients implemented. The analyses were well done.

Major comments:

1. One of the inclusion criteria is: “inclusion in the MarketScan Commercial or Medicare Databases with # 2 claims (to ensure they were treated for chronic disease) for chronic dialysis # 30 days apart and within 365 days between January 1, 2002 and October 31, 2010”. This may not guarantee chronic dialysis or complete coverage of claims. Does the data contain number of dialysis sessions? A chronic dialysis patient usually has at least 8 dialysis sessions a month. If not, the patient might not be an ESRD dialysis patient or the data is not complete. A sensitivity analysis is necessary if the data has the information on number of dialysis sessions.

2. Is payment for Medicare patients the same as that for patients in health insurance groups? If not, it is a problem to mix the two cohorts together.

3. The paper says “the MarketScan Medicare Database contains Medicare-covered portion of payment, employer-paid portion, and patient-paid portion.” Does it include the payment portions for each item (transfusion is usually just one item of the services in the claim)?

4. The Results show that transfusion cost varies substantially. This needs to discuss thoroughly: what might cause this variation: geographic area, transfusion amount, or data problem, especially for the blood acquisition and administration cost. May the high cost be related to combined transfusions? Detailed distribution of cost should be given, which include percent of 0, 90, 95, and 99 percentiles, and the largest cost.

Minor comments:

1. Does the complication cost include the corresponding drug cost?

2. Hospitalization after transfusion might be related to the transfusion also. But it cannot be separate out from inpatient claims. This should be discussed in the limitation.
**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

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