Reviewer’s report

Title: Redefining Diagnosis-Related Groups (DRGs) for palliative care - a cross-sectional study in two German centres

Version: 0 Date: 16 Jun 2017

Reviewer: Charles Normand

Reviewer’s report:

This is a very useful paper, and uses generally appropriate methods with appropriate data to address an important issue. The paper is clearly written and demonstrates a good understanding of the field.

The key finding of the paper is not surprising - DRGs were developed with a general view that care was episodic and to a great extent related to a single disease, and the essence of palliative care is that it is ideally continuous and related to a complex interplay of diseases and deficits, with important needs to co-ordinate provision in different settings. I think that the paper would benefit from a little more focus on the more generic reasons why a diagnosis based reimbursement system (even for a single hospital episode) is not likely to be well suited to funding palliative care. It is useful to have the evidence that it does not lead to full coverage of costs in the German system, but to me it would be surprising if it did.

What is of course not clear is which way it would go - given that palliative care can be associated with decisions not to provide certain interventions or treatments since the patients is unlikely to benefit from more aggressive therapies (there is evidence in a few recent papers that are not cited that certain services are less likely after intervention by SPC)it could be the case that diagnosis based reimbursement would lead to over reimbursement.

Since there is already a supplement paid for palliative care cases the issue then comes (as recognised by the authors) as to how this is calculated, and if it is potentially provides a way to fund palliative care without a more radical change in perspective.

In the discussion I would expect to see some engagement with the wider question if funding of episodes of hospital care based on the (effective) assumption that these are stand alone events, will make sense in future as ageing leads to increased multimorbidity and frailty. This paper might be the start of a more fundamental challenge to the wider DRG funding model. There is little said here about incentives, possible cost-shifting and the ways in which funding models may incentive care in hospital and in the community. The current arrangements disincentivise hospital palliative care (since it is loss making). It is not clear that this is a bad thing, but this presupposes that incentives for non-hospital provision are there (which to my knowledge they at not).
The purpose of this somewhat rambling set of points is to encourage the authors to locate the analysis and findings in the slightly wider set of funding issues, and perhaps to show a greater scepticism about the DRG model and its potential usefulness in the context of complex needs.

I have few detailed points. Given the readership of this journal it may be useful to make a few parts of the methods clearer - for example would readers be familiar with LOESS, why it might be chosen and indeed even what it is? The authors provide very full discussion of weaknesses, and I do not see these are very serious.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

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Yes

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