



Paying for efficiency: incentivising same-day discharges in the English NHS

LSE Research Online URL for this paper: <http://eprints.lse.ac.uk/101650/>

Version: Published Version

Article:

Gaughan, James, Gutacker, Nils, Grašič, Katja, Kreif, Noemi, Siciliani, Luigi and Street, Andrew ORCID: 0000-0002-2540-0364 (2019) Paying for efficiency: incentivising same-day discharges in the English NHS. *Journal of Health Economics*, 68. ISSN 0167-6296

<https://doi.org/10.1016/j.jhealeco.2019.102226>

Reuse

This article is distributed under the terms of the Creative Commons Attribution (CC BY) licence. This licence allows you to distribute, remix, tweak, and build upon the work, even commercially, as long as you credit the authors for the original work. More information and the full terms of the licence here: <https://creativecommons.org/licenses/>



Paying for efficiency: Incentivising same-day discharges in the English NHS



James Gaughan^{a,*}, Nils Gutacker^a, Katja Grašič^a, Noemi Kreif^a, Luigi Siciliani^b, Andrew Street^c

^a Centre for Health Economics, University of York, United Kingdom

^b Department of Economics and Related Studies, University of York, United Kingdom

^c Department of Health Policy, The London School of Economics and Political Science, United Kingdom

ARTICLE INFO

Article history:

Received 7 August 2018

Received in revised form 4 July 2019

Accepted 13 August 2019

Available online 21 August 2019

JEL classification:

D22

I11

Keywords:

Pay for performance

Prospective payment systems

Activity based funding

Hospital incentives

DRGs

Synthetic control method

Policy evaluation

ABSTRACT

We study a pay-for-efficiency scheme that encourages hospitals to admit and discharge patients on the same calendar day when clinically appropriate. Since 2010, hospitals in the English NHS are incentivised by a higher price for patients treated as same-day discharge than for overnight stays, despite the former being less costly. We analyse administrative data for patients treated during 2006–2014 for 191 conditions for which same-day discharge is clinically appropriate – of which 32 are incentivised. Using difference-in-difference and synthetic control methods, we find that the policy had generally a positive impact with a statistically significant effect in 14 out of the 32 conditions. The median elasticity is 0.24 for planned and 0.01 for emergency conditions. Condition-specific design features explain some, but not all, of the differential responses.

© 2019 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Many healthcare systems reimburse hospitals through prospective payment systems (PPS) in which the price for a defined unit of activity, such as a Diagnosis Related Group (DRG), is set in advance and is equal across hospitals (Paris et al., 2010). Economic theory predicts that hospitals will expand activity in areas where price exceeds marginal costs and minimise activity in areas where they stand to make a loss.¹ This form of reimbursement should encourage hospitals to engage in efficient care processes and cost

reduction strategies to improve profit margins (Shleifer, 1985; Ellis and McGuire, 1986; Ma, 1994; Hodgkin and McGuire, 1994).

One way to reduce costs is by reducing length of stay (LoS), this being an important cost driver. For some patients it may be possible to reduce overnight stays to zero, specifically those for whom care can be provided safely² within a setting in which patients are admitted, treated and discharged on the same day ('same day discharge' (SDD)). Not only may an SDD be less costly to provide, it might also be beneficial to some patients if they can recover in the comfort of their own home and are less exposed to potentially infectious hospital environments. Increasing SDDs for these patients generates a welfare improvement driven by lower provider costs and unaltered or improved health benefits for patients. The British Association of Day Surgery (BADS) 2006 has recommended the adoption of SDD for 157 types of planned surgery and the British

* Corresponding author at: Centre for Health Economics, University of York, Heslington, United Kingdom.

E-mail address: james.gaughan@york.ac.uk (J. Gaughan).

¹ (Semi-)altruistic providers may be willing to treat patients for which marginal costs exceed price as long as the financial losses are offset by sufficient patient benefit. The extent to which this is possible depends on the potential for cross-

² As early as 1985, the Royal College of Surgeons noted that "it should be clear to all concerned, the surgeon, the nursing staff, and in particular the patient, that day-