



The Simultaneous Impact of Patient's and Doctor's Financial Incentives The Case of Dental Diagnostics in NHS Scotland

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The aim of this paper is to test whether simultaneous consideration of supply and demand side cost sharing yields different findings than previous studies which have been investigating both incentive mechanisms distinct from each other, using dental diagnostics in NHS Scotland as an example. We use 2001 to 2005 panel data from the Management Information and Dental Accounting System (MIDAS) which provides 388,652 claims by Scottish dentists for non-traumatic treatment delivered to NHS patients above 18 years of age. Controlling for unobserved heterogeneity from patients and/or dentists we estimate a series of fixed-effects models in order to identify the influence of demand and supply side cost sharing on utilization of diagnosis via mirror/probe or via small x-ray imaging, respectively. We find a significant effect of doctor's reimbursement type on the extent to which mirror/probe examinations are utilized. For the utilization of dental x-rays, we observe significant and equally sized effects of both doctor's reimbursement and patient's insurance coverage. Moreover, if conditioning use of x-rays on prior use of mirror/probe examinations, there is a particular increase in utilization of x-rays for patients who are exempt from charges and treated by a salaried dentist. This study shows how financial incentives for both doctor and patient simultaneously determine utilization of dental diagnostics. Specially, the observed utilization patterns suggest that dentists are influenced by reimbursement schemes when they advice x-rays. Then, upon advice of an x-ray by the dentist, patients appear to follow the ex post consumer moral hazard track.

Keywords: Ex Post Moral Hazard; Physician Agency; Utilization of Dental Services; Diagnostic Methods; Demand and Supply Side Cost Sharing; Dentists Remuneration; Supplier Induced Demand.

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