EDITORIAL

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Why pharmacogenetic testing should be reimbursed by Medicare and commercial health insurance

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It is well documented in the field of psychiatry that pharmacogenomic testing improves patient care[1-3] by providing physicians a tool to accurately monitor patient compliance and tolerance to certain drugs and their dosages. For example, in guidelines promulgated by several organizations including the Food and Drug Administration (FDA) list the pharmacogenomic testing that should be performed when prescribing psychiatric drugs such as amitriptyline.[2] Among the CYP450 metabolizing enzymes with variants is CYP2D6, responsible for the metabolism of drugs such as oxycodone. The field of pain medicine could also benefit from the use of pharmacogenomic testing for opioid management but has been stymied by lack of support by government and commercial entities that label these tests as, at best "experimental" and at worst, outright fraudulent.

Not all patients respond to medications in the same way in part due to genetic differences, and pharmacogenomic testing has great potential to improve patient care in these cases. The United States (US) government began an initiative for Precision Medicine in 2015 to provide better patient care by tailoring drug therapies to specific patients; Pharmacogenomic testing is a way to ensure patients are getting accurate dosages.[4] Ironically, these tests have been classified as experimental and therefore not reimbursable.[5]

A strong argument for incorporating pharmacogenetic testing into patient care comes from studies by Italian and Dutch workers, who showed this testing is cost effective.[6] However, when US commercial and Medicare payors refuse to pay for many of these tests, they become financially unfeasible for the laboratories that wish to offer them. In fact, Medicare has been known to claim back the reimbursement it initially paid for these tests, driving at least two commercial laboratories out of the business of pharmacogenetic testing. A recent study by a laboratory at the University of Florida showed that only 46 percent of their claims were actually reimbursed.[7] In short, this low reimbursement rate makes pharmacogenomic testing available only to the wealthy and lucky.

Bottom line, official government policy recognizes precision medicine, but its definition does not include genetic testing related to medications and is therefore not funding a key component of this initiative. Precision medicine cannot be truly precise without pharmacogenomic testing, and pharmacogenetic testing cannot be sustainable for the patient without appropriate reimbursement.

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