

UPDATE: COST EFFECTIVENESS ANALYSIS

- We have completed a systematic review of the cost effectiveness literature relevant to genetic testing. Our summary of this literature will be presented at two meetings in 2005:
 - International Health Economics Association, Barcelona, Spain, July 2005
 - International Society for Pharmacoeconomics and Outcomes Research, Washington DC, May 2005
- Our paper upon which the presentations are based has been submitted for publication to Genetics in Medicine, and has been favorably received by the editor (peer reviews are forthcoming). Acceptance seems likely for publication in late 2005 or early 2006.
- An abstract of the paper is attached.
- Work is underway on a cost effectiveness analysis of a genetic test intended to help prevent hearing loss in children resulting from exposure to the aminoglycoside class of antibiotics.
 - In the United States, the A1555G variant in the mitochondrial 12S ribosomal RNA gene accounts for 15% of aminoglycoside-induced deafness.
 - The test is marketed by Aethena (http://www.athenadiagnostics.com/hearingloss/otodx_aminoglyco.asp), and is directed at the pediatric population.
 - The turnaround time for test results (about two weeks) may be prohibitively long for use at initiation of antibiotic therapy
 - A negative test result does not rule out a diagnosis of hearing loss because there may be other mutations within these genes, or there may be other genes known to be involved with hearing loss that are not detected by this test.
 - The mutation has implications for maternal family members (mitochondrial DNA).