

Gaps Observed by EGAPP

IOM Roundtable

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EGAPP — An Initiative from the Centers for Disease Control and Prevention

Evaluation of
Genomic
Applications in
Practice and
Prevention

CYP450

- n The EWG found insufficient evidence to support a recommendation for or against use of CYP450 testing in adults beginning SSRI treatment for nonpsychotic depression. In the absence of supporting evidence, and with consideration of other contextual issues, EGAPP discourages routine use of CYP450 testing for patients beginning SSRI treatment until further clinical trials are completed.

UGT1A1

- n The EWG found that the evidence is currently insufficient to recommend for or against the routine use of UGT1A1 genotyping in patients with metastatic colorectal cancer who are to be treated with irinotecan, with the intent of modifying the dose to avoid adverse drug reactions.

Lynch Syndrome

- n The EWG found sufficient evidence to recommend offering genetic testing for Lynch Syndrome to individuals with newly-diagnosed colorectal cancer to reduce morbidity and mortality in relatives. We found insufficient evidence to recommend a specific genetic testing strategy among the several examined.

Breast Cancer Gene Expression Profiling

- n The EWG found insufficient evidence to make a recommendation for or against the use of tumor gene expression profiles to improve outcomes in defined populations of women with breast cancer. For one test, the EWG found preliminary evidence of potential benefit of testing results to some women who face decisions about treatment options,

n but could not rule out the potential for harm for others. The evidence is insufficient to assess the balance of benefits and harms of the proposed use of the tests. The EWG encourages further development and evaluation of these technologies.

Genetic Testing

Gaps in Evidence

- n Prevalence of polymorphisms and abnormalities in typical clinical populations
- n Penetrance
- n Clinical trials comparing testing and intervention strategies
- n Assessment of all relevant outcomes
- n Attention to benefits as well as harms
- n Cost and feasibility

Where Next?

- n Data on clinical utility are essential
- n Examine pharmacogenomic applications with well-designed RCTs
- n More research on impact of genetic information on behavior
- n Selective use of modeling to estimate potential benefits and harms as a guide for setting research priorities

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n EGAPP Website:
www.egappreviews.org