

Cost-Effectiveness of HCV Testing

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CDC guideline for one-time age cohort HCV screening

- “CDC is recommending that everyone born during 1945 through 1965, also known as baby boomers, get a blood test for Hepatitis C. This recommendation calls for one-time testing of baby boomers.”

Cost-effective \neq Cost saving

Cost-effectiveness is about value for money

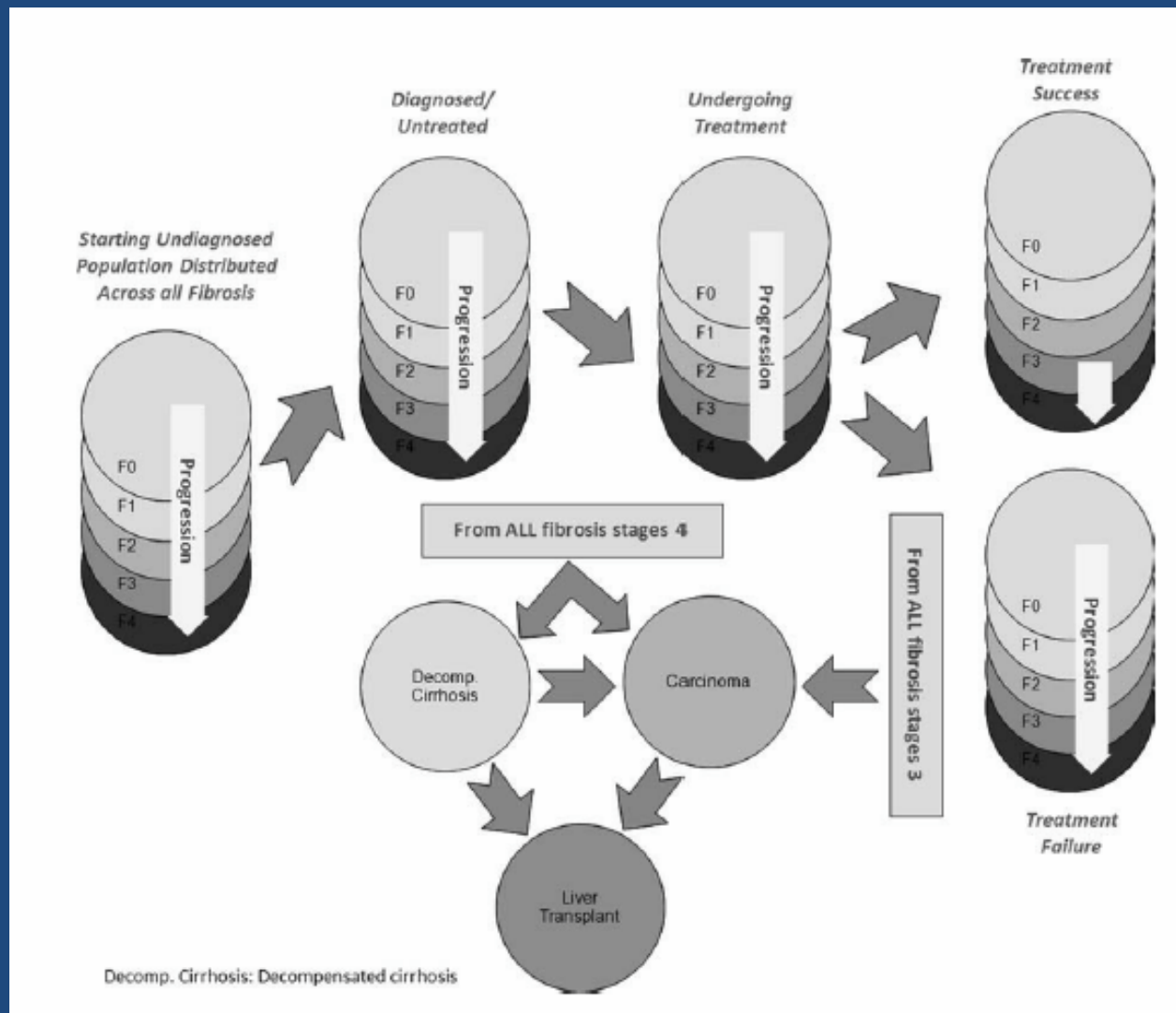
- Cost-effectiveness analysis is about comparative assessment of worth
- Very, very few health interventions are cost-saving
- Cost-effectiveness is evaluated from the societal perspective
- Cost-effectiveness analysis does not directly address the cost impact on specific budgets

Only one of many measures of the appropriateness of health interventions

- Clinical duty
- Ethical duty
- Equity / justice
- Patient preference
- Economic efficiency

All models are wrong, some
models are useful

Example of an HCV screening model



Cost-effectiveness of one-time age cohort HCV screening compared to risk-based screening

	Coffin (2012)	Rein (2012)	McGarry (2012)
Cost/QALY	\$4,200	\$15,700/\$35,700	\$37,700
Age cohort screened	born 1945-65	born 1945-65, ≥ 1 primary care visit	born 1946-1970
HCV Treatment	peg-interferon + ribavirin	peg-interferon + ribavirin for all/peg-interferon + ribavirin + direct-acting antiviral for genotype 1	peg-interferon + ribavirin + protease inhibitor
Treatment uptake among those who accept screening	26%	45%	24% (additional patients with disease progression will be treated post-diagnosis)

CDC guideline for one-time age cohort HCV screening

- “CDC is recommending that everyone born during 1945 through 1965, also known as baby boomers, get a blood test for Hepatitis C. This recommendation calls for one-time testing of baby boomers.”
- “Since health plans vary by state and provider, individuals are encouraged to check with their specific plans about coverage”

Budget impact of one-time age cohort HCV screening versus risk-based screening

- If the entire cohort age 40-64 was screened
 - \$2.7 billion additional screening cost
 - \$32.7 billion additional diagnosis, treatment and management costs
 - \$9.0 billion savings in advanced liver disease costs
- Impact varies by payer
 - Screening, diagnosis, treatment and management costs: commercial health insurance, VA, Medicaid
 - Advanced liver disease savings: Medicare and others

Cost-effectiveness of repeated screening for acute HCV in HIV-infected MSM

- Sexually-transmitted acute HCV among HIV-infected MSM have been reported in the US and Europe
- The European AIDS Treatment Network (NEAT) recommends HCV Ab screening every 12 months and LFTs every 6 months in this population
- Linas et al. (2012) estimated the cost-effectiveness of the NEAT strategy compared to symptom-based screening:
 - \$43,700/QALY assuming treatment with peg-interferon + ribavirin
 - \$57,800/QALY assuming treatment with peg-interferon + ribavirin + protease-inhibitor

Suggestions for future economic studies

- Cost-effectiveness of HCV screening in non-primary care settings
 - Substance abuse treatment
 - STD clinics
 - Community outreach
- Cost-effectiveness of repeated screening of high-risk individuals
- Implementation feasibility and budget impact