Better Decisions for Better Health:
Priority-Setting and Health Technology Assessment for Universal Health Coverage
New Dehli, India 2014

‘Considering cost-effectiveness and social values in healthcare priority setting: case studies around NICE Technology Appraisal and Clinical Guidelines’

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We cannot afford everything that is effective

"The NHS, just like every other healthcare system in the world—public or private—has to set priorities and make choices. The issue is not whether there are choices to be made, but how those choices are made. There is not a service in the world, defence, education or health, where this is not the case."

Parliamentary Health Committee

Priority Setting in Health Care

When a new technology enters UK

EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

NICE National Institute for Health and Care Excellence

MHRA

Regulators tell England whether it CAN use a technology
NICE tells England whether it SHOULD use a technology

Technology Appraisal Committees Independent and 'real people'

'They're not there for pushing around'
Sir Andrew Dillon

Adam Wishart, BBC2, "Price of Life"

- Chair
- Vice-chair
- Physician
- Statisticians
- Health Economists
- Investigational physician
- Clinical pharmacologists
- Industry representative
- Surgeon
- Paediatrician
- Nurses
- Lay member
- Managers
- Pharmacists
- General Practitioners
- Public Health physicians

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When the drug is not cost-effective, even when free

Vinflunine for Bladder Cancer

- Costs of vinflunine based on:
  - mean dose (287 mg/m^2)
  - mean body surface area (1.85 m^2)
  - mean number of treatment cycles (4.2) in main trial
  - intravenous infusion every 21 days in outpatient setting
  - complete blood count before administering drug
  - prophylaxis for constipation
- Total treatment costs
  - £21,714 for vinflunine plus best supportive care
  - £8,642 for best supportive care alone
- Assumed zero wastage (drug comes in vials) – vial sharing
- ICER > £100,000 per QALY
- Sensitivity analyses –
  - even when drug price = £0, ICER is £27,478

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When drug is cost effective, even if it doesn’t work

Bee/wasp venom desensitisation

	Advice only	Epi + antihistamine + advice	Pharmalgen + epi + antihistamine + advice
Stings resulting in systemic reaction	56%	44%	6.5%

Population 1 – base case

- 0.095 stings per person/year
- **ICER £18,065,527**

Population 2 – high risk

- 5 stings per person/year
- ICER **£-179,020** (cost saving)

Population 3 – anxious

- Assumes lowers anxiety
- 0.095 stings per person/year
- ICER **£23,868**

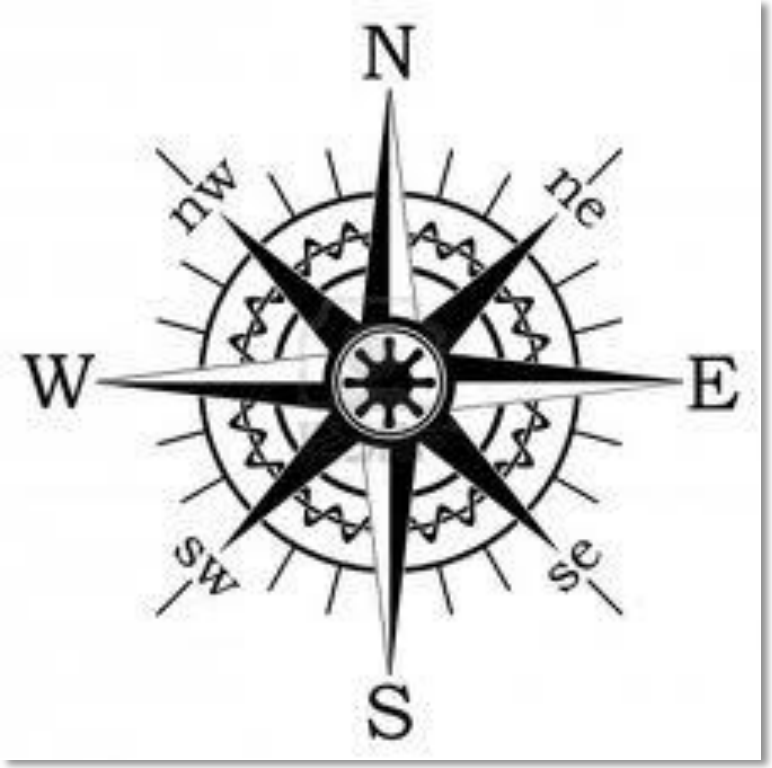
Scenario analysis

- Improves anxiety, but not otherwise effective
- ICER £24,605

Recommended

Ref: TA 246, TA 272

When drug is cost effective, even when less effective than comparator

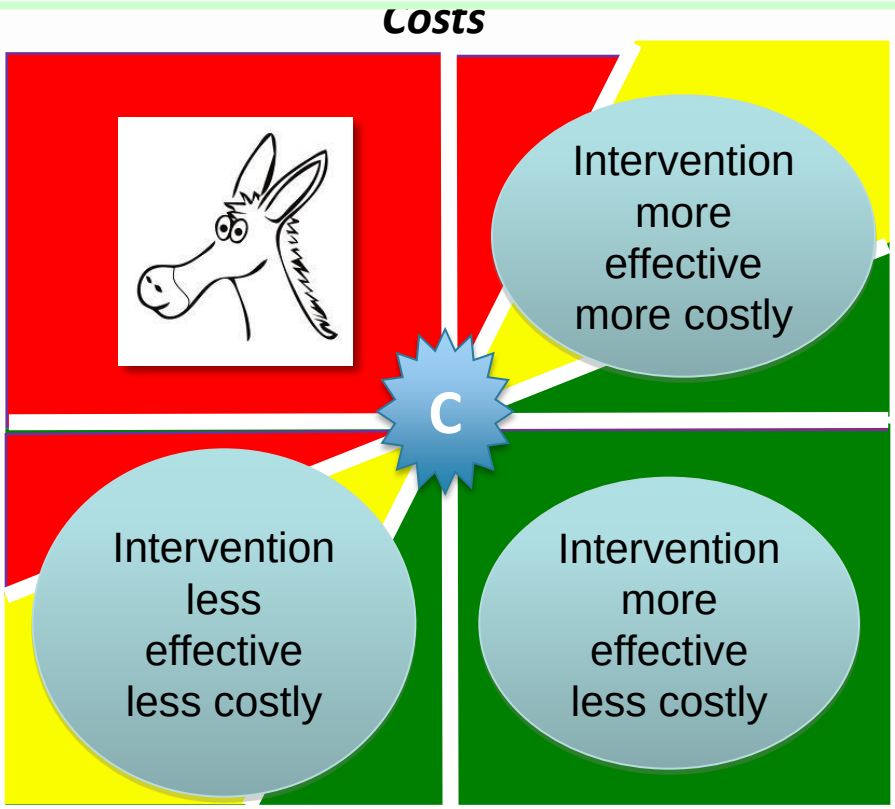


AIA 2014

Cost Effectiveness Plane

RELATIVE TO STANDARD CARE

- *Costs positive, effectiveness positive so Δ costs/ΔQALY is positive (+)*
- *ICER represents extra cost given increased effectiveness*
- ***So, smaller is better***



"SouthWest"

- *Costs negative, effectiveness negative so Δ costs/ΔQALY is positive (+)*
- *ICER represents savings given decreased effectiveness*
- ***So, bigger is better***

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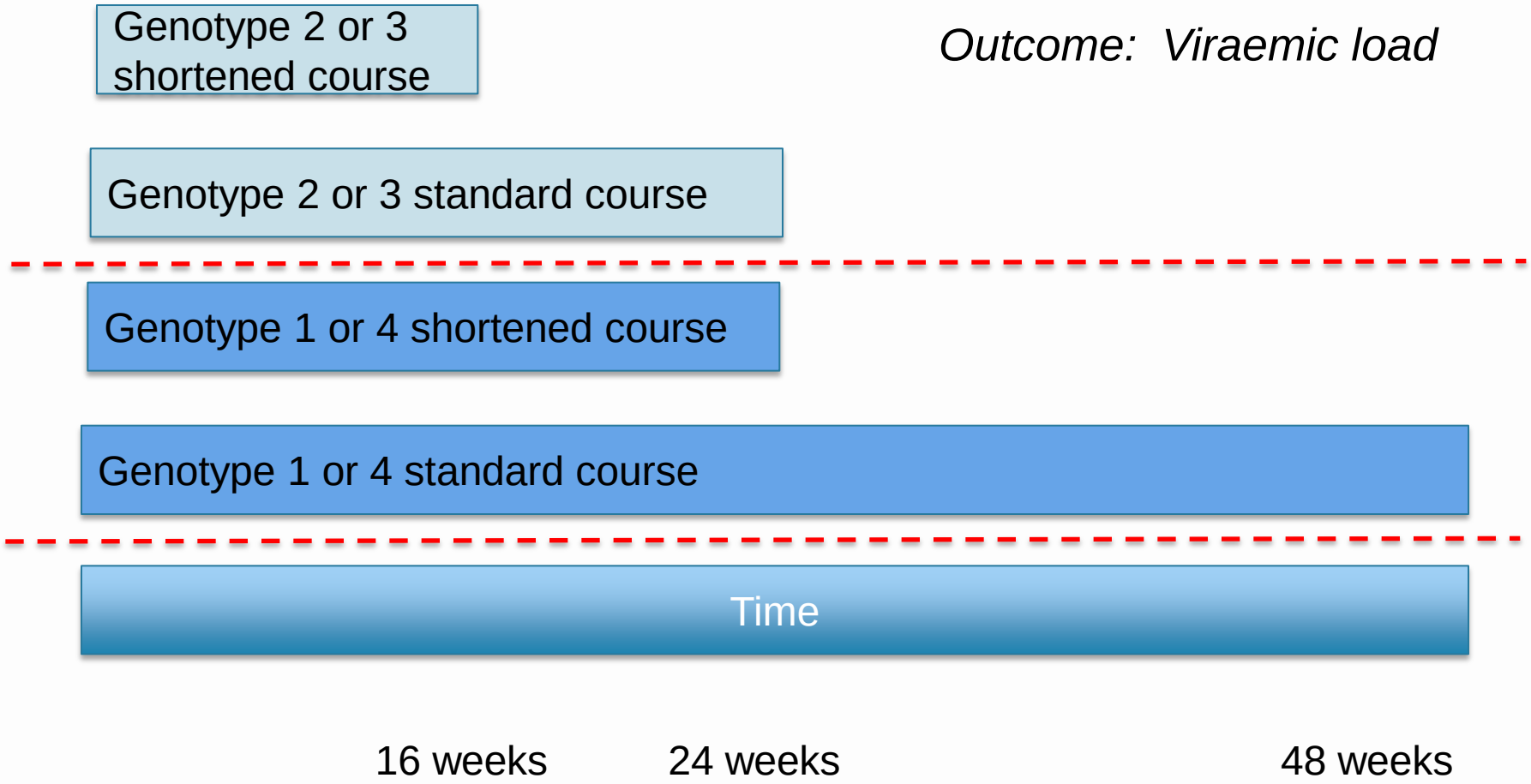
Ribavirin plus peginterferon - Hepatitis C



When a drug is extremely affordable, but not cost effective

SCOPE

Intervention(s)	Omalizumab (in addition to best supportive care)
Population(s)	Children (6-11 years) with severe persistent allergic (IgE mediated) asthma as specified in the marketing authorisation.
Comparators	Standard therapy without omalizumab
Outcomes	The outcome measures to be considered include: • symptom-free days and nights • incidence of clinically significant acute exacerbations, including those which require unscheduled contact with healthcare professionals or hospitalisation • levels of corticosteroid use • mortality • adherence to treatment • adverse effects of treatment • health-related quality of life

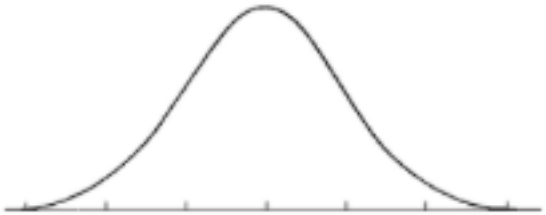
Cost-effectiveness results

Per patient	Total Costs £	QALY	Δ Costs £	Δ QALYs	ICER £
Base case					
Standard therapy	39,151	16.08			
Standard therapy + omalizumab	94,774	16.68	55,623	0.61	**91,169**

Comment from manufacturer: "We are particularly disappointed with NICE's preliminary decision because of the very small number of children for whom this guidance is relevant. It is important to emphasise that only a small proportion of the overall severe allergic asthma patient population would be eligible for treatment with omalizumab"

Methods Guide Technology Appraisal: "The Appraisal Committee does not consider the affordability of the new technology but does take account of how its advice may enable the more efficient use of available healthcare resources"

Challenges posed by the Media and Public Perception



Prostate cancer pill that can extend life by years and delay need for chemotherapy set for ban because it is not cost effective

- **Abiraterone gives at least four months' extra life**
- **Offered to men on NHS after treatment when they are running out of options**
- **Last year, abiraterone used before chemo by 3,000 men in England**
- **Some men have survived on it for almost five years**
- **Chief executive of Nice said drug would not be cost-effective at this stage**

By JENNY HOPE

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The NHS rationing body is poised to ban the use of a drug that could delay the need for chemotherapy among men with advanced prostate cancer.

Abiraterone, which gives at least four months' extra life, is offered to men on the NHS after treatment and when they are running out of options.

Increasing acceptance

"Patients must get access to the most effective cancer treatments quickly ... And the pharmaceutical industry needs to price in a realistic way, based on the potential benefit of the treatment."

**http://www.adamwishart.info/2009/06/the-unbearable-cost-of-living.html*

Recommendations Technology Appraisals '1–265'

Recommendation	1 March 2000 to 31 October 2012			1 January to 31 October 2012
	Single Technology Appraisal	Multiple Technology Appraisal	Total	
Yes	63 (58%)	234 (64%)	297 (62%)	20 (61%)
Optimised	15 (14%)	68 (19%)	83 (18%)	-
Only in research	3 (3%)	22 (6%)	25 (5%)	1 (3%)
No	27 (25%)	43 (11%)	70 (15%)	12 (36%)
TOTAL	108 (100%)	367 (100%)	475 (100%)	33(100%)

6 recommendations were subsequently withdrawn after publication;

3 after the EMEA revoked marketing authorisation due to safety concerns,

1 where the product was no longer produced by the manufacturer

2 when a nationally funded program for a technology rendered guidance obsolete.

12 recommendations not made because manufacturer did not submit

Thank you