

The '3Es' Framework – Evidence, Economics & Ethics

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History of Funding Considerations

- Primacy of clinical outcomes/evidence in the mid to late twentieth century
 - Incremental or 'breakthrough' therapeutic benefit plus acceptable toxicity (relatively safe) = obligatory public funding = automatic placement on provincial formularies
 - These were the 'good ole days' of public funding of cancer therapies that ended when the cost of these therapies significantly escalated in the late twentieth and early twenty-first centuries

Historical funding considerations

- Addition of a pharmacoeconomic 'lens'
 - In the mid-1990s, pharmacoeconomic analyses started to be more widely applied and considered in the decision making regarding the public funding of expensive new cancer drugs
 - This was associated with the introduction of such cost-effectiveness measures as cost per gained QALY which attempted to capture both cost and therapeutic outcomes

Background funding considerations

- Recent arrival of the 'new kid on the block' – ethics analysis
 - Recognition that there is an important normative (what should be) component to decision making regarding the public funding of treatments/interventions

Example of a fundamental funding ethics question

- E.g.,
 - Should Canadian tax payers fund the meeting of a particular health need, e.g. that of a person living-with-cancer in the context of: 1) multiple, competing health needs of many sorts, and 2) a 'fixed pot' of limited health resources?

Limits of separate 'Es'

- Limits of evidentiary analysis:
 - Funding decisions so informed are only as good as the evidence on which they are based, and
 - Health evidence, and the health knowledge so generated, can be (and often is) significantly distorted

Limits of evidentiary analysis

- How distorted? e.g.,
 - “the private capture of the public research process” – P. Baird; e.g., CIHR and Genome Canada requirements for ‘matched funding’
 - the pursuit of only that health knowledge which is anticipated to benefit pharmaceutical company shareholders, which leads to a co-opting/skewing of the health research agenda
 - the blurring of academic and industry interests
 - the unjust exclusion of disadvantaged social groups from participation in research, and the related suboptimal generalization of health knowledge to these groups
 - common publication biases

Limits of separate 'Es'

Limits of pharmacoeconomic analysis:

- Concerns about the validity and utility of PE analyses:
 - Deficiencies in reliability and methods standardization
 - Difficulties encountered in comparing therapeutic benefits, such as symptom relief, to improvement in overall survival
 - Critiques of QALY measurement – whose preferences are more relevant: the public's or those of individuals with experiential knowledge of the particular cancer

Limits of PE analysis

- “It would be ... inappropriate to use economic efficiency as the sole or even principle determinate of decisions”
- “The allocation of [health] resources simply on the basis of their ‘cost per QALY’ either fails to reflect the preferences of society, or does so only very imperfectly”

McGregor & Caro

Limits of separate 'Es'

■ Limits of ethics analysis

- "There is no shared conception of justice for determining what health resources a person has a just claim to." – A. Buchanan
- There are no easy answers to crucial health resource allocation questions such as: "should an aggregation of modest benefits to larger numbers of persons be given priority in decision making over significant benefits to fewer individuals"

Limits of ethics analysis

- Attempted incorporation of ethics analysis into meso-level health care decision making processes and policy development has been problematic to date
- Most existing 'ethics-based' decision making frameworks are too general in scope and content to provide much pragmatic guidance in specific health care applications

The challenge and motivation

- Given the significant limits to the separate consideration of each of the '3Es', the challenge arises:
 - To develop a fair, defensible decision making process for the public funding of cancer therapies that could effectively integrate and synthesize all three elements: Evidence, Economics and Ethics

The work in Nova Scotia

- Cancer Systemic Therapy Policy Committee
 - Established in June 2005
 - Health economist and ethicist added in April 2006
 - Initial draft of '3E' Framework developed by June 2006
 - Approx. twelve cancer therapies for specific indications considered to date

CSTPC membership

- Broad multi-stakeholder group which includes:
 - Persons living-with-cancer
 - Health care providers: oncologists, oncology nurses/social workers, etc.
 - Participants from:
 - Cancer Care Nova Scotia
 - Nova Scotia Department of Health
 - Other provincial health care sectors
 - Health economist
 - health care ethicist

Purpose of '3E' Framework

- To promote and facilitate evidence-, economics- and ethics-informed decision making by the 'right' stakeholders in the making of recommendations to the Deputy Minister of Health regarding the public funding of cancer therapies
- To respect collaboratively-established process values that have been actively incorporated into the decision making framework: inclusiveness, collaboration, accountability, transparency, consistency, procedural fairness and responsiveness

Step 1. Conflicts of Interest

- Acknowledgement and active management by the Chair of any conflicts of interest of individual Committee members with regard to the considered therapy
 - E.g., Financial: shareholding in pharmaceutical company that holds patent for and/or produces the therapy

Step 2. Review of Voting Process

- A Committee quorum is required for use of the framework
- Decisions re. funding recommendations are made by majority vote as determined by secret, electronic ballot conducted by the Chair one week after use of the framework; Committee members who actively participate in use of the framework are required to vote within one week of receiving their ballots; members who do not participate in use of the framework do not vote; the Chair votes in the event of a tie (way to mitigate non-constructive power differentials)

Step 3. Substantive Values and Principles

- Reflect on collaboratively-established substantive values and principles* that are to inform, and act as foundational ethics criteria for, decision making:
 - Beneficence/nonmaleficence
 - Health equity
 - Efficiency
 - Sustainability
 - Justice
- * Chosen by NS CSTPC; could be different for other provinces, i.e., way to promote regional contextualization
- Pay attention to how these values and principles may conflict and lead to competing obligations

Substantive Vs & Ps

- Beneficence/nonmaleficence
 - Benefit, and reduce burdens to, persons living-with-cancer and their families/ 'intimate others'
 - Benefit, and reduce harms to, the 'health' (WHO definition: "state of ...physical, mental and social well-being") of all citizens

Substantive Vs & Ps

■ Health Equity

- WHO slogan: *"a fair chance for all"*
- Obligation to reduce disparities among individuals and groups of persons in:
 - Opportunities for (good) 'health'
 - Access to health care

Substantive Vs & Ps

■ Efficiency

- Carefully consider in decision making:
 - The efficacy and clinical relevance of the therapy
 - The cost-effectiveness of the therapy
- Promote efficiency in the delivery of limited health resources

Substantive Vs & Ps

■ Sustainability

- Take into meaningful account:
 - The sustainability of resources for the therapy if funded (including costs of human/infrastructure resources for therapy administration and management of toxicities/side effects, etc.)
 - The sustainability of global resources intended to meet the legitimate health care needs of all citizens
- Anticipate future health care needs and challenges

Substantive Vs & Ps

- Justice – three relevant types of:
 - Distributive justice: distribute benefits and burdens fairly on the basis of health needs and available resources; in modern times, this entails allocation of limited health resources
 - Formal justice: treat individuals and groups of persons the same unless there is a demonstrable *relevant* difference among them that *should* be taken into account

Substantive Vs & Ps

- Social justice: identify, and reflect on, the particular disadvantages and vulnerabilities of individuals and groups of persons who will be directly affected by the recommendation; determine ways to attend to, and reduce, social injustice in the decision making process and its outcomes

Step 4. Clinical Presentation

- An invited clinical expert from the relevant cancer site team provides brief, 'understandable' descriptions of:
 - The relevant health condition (cancer) and its corresponding incidence/prevalence
 - The therapy and its known or theoretical mechanism(s) of action
 - The results of pivotal research studies and the related degree of knowledge certainty
 - The "Guidelines for Role of Therapy" established by the cancer site team and approved by the Oncology Subcommittee

Step 5. Critical PE Appraisal

- The Committee's health economist provides an 'understandable' summary of his/her conclusions arising from a critical appraisal of the best available pharmacoeconomic analysis(es) of the therapy

Step 6. Other Information

- Identify and discuss other relevant information, e.g.,
 - Particular social groups with high risk of the cancer and/or increased vulnerability to non-funding of the therapy
 - Current status of funding in other jurisdictions, e.g., other provinces, UK, Australia
 - The present provincial and Canadian 'social consensus' re. public funding of this and similar cancer therapies, if known or determinable

Step 7. Constraints

- Identify and acknowledge existing constraints on decision making, e.g.,
 - Limited provincial health resources – ‘a given’
 - Government mandates:
 - Provision of particular health services at prescribed volumes
 - Existing inter-provincial agreements
 - Established health care and funding priorities
 - Delays in release of operational funds due to budget implementation challenges, etc.
 - ‘The Law’ and Human Rights Legislation

Step 8. Recommendation Options

- Identify and discuss possible recommendation options, e.g.,
 - Approval of funding for use of therapy as per 'Guidelines for Role of Therapy' established by the cancer site team
 - Approval of funding for use of therapy with further restrictions
 - Approval of 'in-between' options, e.g., partial coverage with amount determined by sliding scale(s) of income and/or other indices of disadvantage/vulnerability
 - Denial of coverage
 - A. Take no further action
 - B. Attempt to negotiate down drug cost with pharmaceutical company provider

Step 9. Analysis of Options

- A. Identify and consider projected benefits of each possible option
 - See benefits section of evidence column of Therapy Analysis Worksheet
 - E.g. for approval options: review of positive clinical outcome measures and quality-of-life benefits; consideration of anticipated savings from discontinuation of supplanted therapies

Analysis of Options

- B. Identify and consider projected burdens of each possible option
 - See burdens section of evidence column of Therapy Analysis Worksheet
 - E.g., for approval options: review of the therapy's anticipated, common toxicities/side effects and the system costs of management of these

Analysis of Options

- C. Review of relevant pharmacoeconomic indicators, e.g.,
 - Drug-only cost per patient per median therapy duration
 - Anticipated human and infrastructure resource costs
 - Cost per gained QALY
 - Budget impact analysis

Analysis of Options

- D. Review appropriate comparators
 - Member of Comparator Analysis Working Group provides a brief summary of actual (or projected) costs of selected, comparable (funded and non-funded) cancer and non-cancer therapies, and, as appropriate, early intervention initiatives, e.g., non-funded screening programs for the particular cancer
 - See Comparator Analysis Worksheet

Analysis of Options

- E. Ethicist-facilitated discussion of the ethics dimensions, e.g.,
 - The degree of alignment of the possible recommendation options with the five substantive values and principles
 - Competing obligations arising from application of the substantive values and principles
 - Competing legitimate interests: persons living-with-cancer, health care providers/administrators, provincial citizens, etc.
 - Ethics concepts and issues of particular relevance

Analysis of Options

- F. Chair-facilitated dialogue with the goal of synthesis and optimal balancing of the evidence, economics and ethics elements in the analysis and comparison of the possible recommendation options

Step 10. Determination of Recommendation (first of post-meeting steps)

- As per step 2., the recommendation to the Deputy Minister is determined by majority vote through secret, electronic ballot
 - After the voting outcome is communicated to Committee members, minority dissenters have the option of submitting their opinions (and rationales for same) to the Chair; these are included in the Dissenting Opinion Appendix to the formal Report & Recommendation

Step 11. Report & Recommendation

- The Chair prepares a Report & Recommendation to the Deputy Minister, which includes:
 - The CSTPC's majority recommendation
 - The voting outcome in numbers, e.g., 9 to 4
 - A summary record of the key deliberations and the efforts to balance evidence, economics and ethics in the analysis
 - As appropriate, a Dissenting Opinion Appendix
 - A suggested communication strategy and relevant briefing notes

Step 12. Appeal Mechanism

- An appeal of the Deputy Minister's decision may be made by any member of the public
- An independent Appeals Panel evaluates appeals on the basis of one or more of the following, specific criteria:
 1. The presence of new evidence (analysis of same provided by the relevant cancer site team)
 2. The demonstration of a significant error(s) in process and use of the framework
 3. A significant, sustained reduction in cost of the therapy (which is guaranteed by the pharmaceutical company provider)

Appeal Process

- The Appeals Panel recommends to the Deputy Minister one of the following:
 1. Denial of the appeal, i.e., maintenance of the original decision
 2. Re-review of the therapy by the CSTPC through use of the framework

Step 13. Follow Through

- The framework is reviewed and evaluated on a regular basis by the Committee with regard to:
 - Experiences with its use and the recognition of potential enhancements on the basis of new knowledge/insights and identified gaps/deficiencies
 - Consideration of serial recommendations to assess decision making consistency and the 'big picture' outcomes of the framework's application