QALYs and Value Assessment

Description

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ABSTRACT

This literature review highlights the limitations of using Quality-Adjusted Life-Years or QALYs, in assessing the value of therapies through its use in cost-effectiveness analysis. Objective: To highlight key issues and limitations with the use of QALYs and present alternative methods to assess value-formoney for evaluating innovative therapies: Methods and Results: Key considerations highlighted include ethical considerations, use of QALYs for resource allocation, underestimating impact of therapy, ageist bias and double jeopardy with respect to people with disabilities or permanent ill-health. Methodological and other limitations covered include lack of established threshold in cost-effectiveness analysis and QALY derivation. Recommendations: Several recommendations are proposed that can either be used in conjunction with QALYs or replace the current QALY metric in value assessment. Conclusion: QALYs are deeply embedded in health technology assessments. For a long period, it represented the only measure that attempts to quantify the impact of a therapy on an individual's health and wellbeing. Given the limitations highlighted here, use of QALYs in value assessments can lead to sub-optimal decisions and impact health outcomes of patients. The gradual inclusion of alternate measures can lead to better evaluation of value-for money of new interventions whilst enabling a more just and fair system for all patients.

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REFERENCES

1. Neumann, P. J., Cohen, J. T., & Weinstein, M. C. (2014). Updating cost-effectiveness—the

- curious resilience of the \$50,000-per-QALY threshold. N Engl J Med, 371(9), 796-797.
- 2. Rebeira, Mayvis (2016). Limitations of Economic Evaluations for Health Technology Assessments in Canada. Canadian Health Policy, October 17, 2016. Toronto: Canadian Health Policy Institute. URL: www.canadianhealthpolicy.com
- 3. NICE UK (National Institute for Health and Care Excellence) (https://www.nice.org.uk/); GRADE website (www.gradeworkinggroup.com)
- 4. Drummond, M. F., Sculpher, M. J., Claxton, K., Stoddart, G. L., & Torrance, G. W. (2015). Methods for the economic evaluation of health care programmes. Oxford university press.
- 5. McCabe, C., Claxton, K., & Culyer, A. J. (2008). The NICE cost-effectiveness threshold. Pharmacoeconomics, 26(9), 733-744.
- 6. Braithwaite, R. S., Meltzer, D. O., King Jr, J. T., Leslie, D., & Roberts, M. S. (2008). What does the value of modern medicine say about the \$50,000 per quality-adjusted life-year decision rule? Medical care, 349-356.
- 7. Kaura, S., Nanavaty, M., Seetasith, A., Nyandege, A., & Khan, Z. M. (2015). Literature review of the use of ICER thresholds in Healthcare decision-making. Value in Health, 18(3), A90.
- 8. Pettitt, D. A., Raza, S., Naughton, B., Roscoe, A., Ramakrishnan, A., Ali, A., ... & Brindley, D. A. (2016). The limitations of QALY: a literature review. Journal of Stem Cell Research and Therapy, 6(4).
- 9. Rawles, J. (1989). Castigating QALYs. Journal of medical ethics, 15(3), 143-147.
- 10. Kappel, K., & Sandøe, P. (1992). QALYs, age and fairness. Bioethics, 6(4), 297-316.
- 11. Singer, P., McKie, J., Kuhse, H., & Richardson, J. (1995). Double jeopardy and the use of QALYs in health care allocation. Journal of medical ethics, 21(3), 144.
- 12. Broome, J. (1994). Fairness versus doing the most good. The Hastings Center Report, 24(4), 36-39.
- 13. Neumann, P. J., & Cohen, J. T. (2018). QALYs in 2018—advantages and concerns. Jama, 319(24), 2473-2474.
- 14. Payne, K., McAllister, M., & Davies, L. M. (2013). Valuing the economic benefits of complex interventions: when maximising health is not sufficient. Health economics, 22(3), 258-271.
- 15. Torrance, G. W. (1986). Measurement of health state utilities for economic appraisal: a review. Journal of health economics, 5(1), 1-30.
- 16. Torrance, G. W. (1970). A generalized cost-effectiveness model for the evaluation of health programs.
- 17. Harris, J. (1987). QALYfying the value of life. Journal of medical ethics, 13(3), 117-123.
- 18. Whitehead, S. J., & Ali, S. (2010). Health outcomes in economic evaluation: the QALY and utilities. British medical bulletin, 96(1), 5-21.
- 19. Lakdawalla, D. N., Doshi, J. A., Garrison Jr, L. P., Phelps, C. E., Basu, A., & Danzon, P. M. (2018). Defining elements of value in health care—a health economics approach: an ISPOR Special Task Force report [3]. Value in Health, 21(2), 131-139.
- 20. Chapman, R. H., Berger, M., Weinstein, M. C., Weeks, J. C., Goldie, S., & Neumann, P. J. (2004). When does quality?adjusting life?years matter in cost-effectiveness analysis?. Health economics, 13(5), 429-436.
- 21. Mehrez, A., & Gafni, A. (1991). The healthy-years equivalents: how to measure them using the standard gamble approach. Medical Decision Making, 11(2), 140-146.
- 22. Keeney, R. L., Raiffa, H., & Meyer, R. F. (1993). Decisions with multiple objectives: preferences and value trade-offs. Cambridge university press.