

Strong recommendations are inappropriate in person-centred care: the case of Anti-Platelet Therapy

Jack DOWIE ^{ab1} and Mette Kjer KALTOFT ^b

^a *London School of Hygiene and Tropical Medicine*

^b *University of Southern Denmark*

Abstract. A ‘Rapid Recommendation’ has been produced by the GRADE group, in collaboration with MAGIC and BMJ, in response to an RCT showing Dual Anti-Platelet Therapy (DAPT) is superior to Aspirin alone for patients who had suffered acute high risk transient ischaemic attack or minor ischaemic stroke. The interactive MAGIC decision aid that accompanies each Rapid Recommendation is the main route to their clinical implementation. It can facilitate preference-sensitive person-centred care, but only if a Multi-Criteria Decision Analysis-based decision support tool is added. A demonstration version of such an add-on to the MAGIC aid, divested of recommendations, is available online. Exploring the results of different preference inputs into the tool raises questions about the strong recommendation for DAPT.

Keywords: anti-platelet therapy, transient ischaemic attack, MAGIC, GRADE, person-centred decision support, preferences, Multi-Criteria Decision Analysis

Introduction

A ‘Rapid Recommendation’ has been produced by the GRADE group, in collaboration with MAGIC and BMJ [1], in response to an RCT showing Dual Anti-Platelet Therapy (Clopidogrel and Aspirin) (DAPT) was superior to Aspirin monotherapy for patients who have suffered acute high risk transient ischaemic attack or minor ischaemic stroke [2].

In the systematic review and meta-analysis undertaken as part of the Rapid Recommendation production process [3], it was confirmed that DAPT was not a dominant option, i.e. it was not best or equal best on all criteria. The Rapid Recommendation was nevertheless a ‘strong’ one in favour of DAPT, to be started within 24 hours in patients who have had a high risk transient ischaemic attack or minor stroke and to be continued for 10-21 days, at which point patients should continue with aspirin alone. In GRADE ‘Strong recommendations mean that *most informed patients would choose the recommended management and that clinicians can structure their interactions with patients accordingly.*’ [4] (p1051, italics supplied).

¹ Corresponding author: Jack Dowie, LSHTM, London WC1H 9SK; E-mail: jack.dowie@lshtm.ac.uk

When there is no dominant option any recommendation is necessarily preference-sensitive, reflecting the relative importance weights assigned to the various criteria. The preferences elicited in the GRADE study were those of the guidelines panel:

... the patient-important outcomes were defined by an international guideline panel [of 19 persons, which] judged death, non-fatal stroke, major extracranial bleeding, functional ability, and quality of life as critical outcomes. Myocardial infarction, recurrent transient ischaemic attack, and minor extracranial bleeding were judged less important [1]. (p.3).

In person-centred care that meets the requirements for informed consent the relevant preferences are those of the individual patient elicited at the point of care. These may be out of line with the average ones reflected in the recommendation of a guideline panel.

Method

We introduce an add-on to the interactive online MAGIC decision aid, presented as the main route to clinical implementation of the rapid recommendation. The add-on enables the criteria importance weights to be varied, to produce a personalised opinion available at the point of decision. It transforms the aid from being simply a set of excellent - but cognitively challenging - infographics, for example Figure 1, into a personalised preference-sensitive decision support tool.

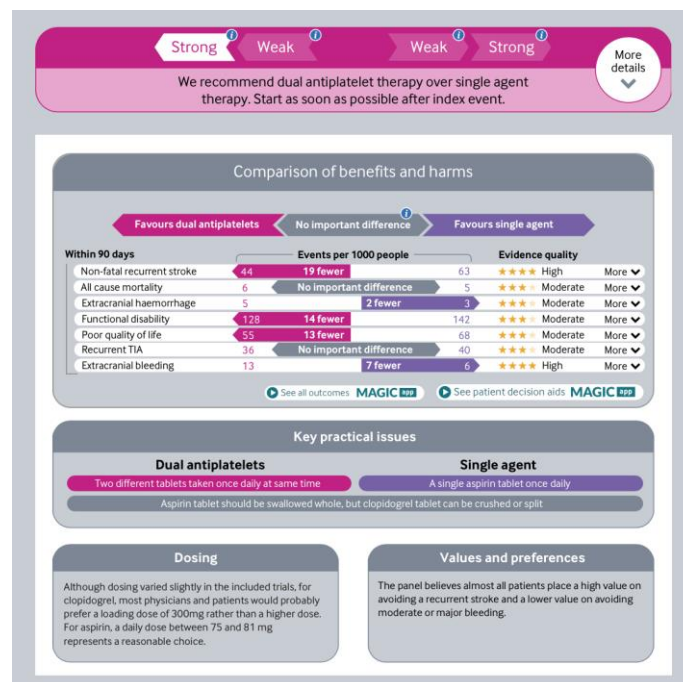


Figure 1. Infographic in MAGIC aid [<https://www.bmj.com/content/363/bmj.k5130>]

The basic inputs into the decision support tool are the seven featured criteria in the MAGIC decision aid, along with the evidence on how DAPT and ASPIRIN perform on

them, as their Ratings. A treatment burden criterion is added, for which the individual is asked to supply their personal difficulty ratings, based on the 'Practical Considerations' section of the aid. Most significantly, they provide their percentage importance Weightings for the eight criteria. The Weightings and Ratings are integrated in expected value calculations to generate a preference-sensitive *opinion* - pair of Option Scores - for the person to discuss (Figure 2). Having seen these scores they then have the opportunity to revise their Weightings in the light of the displayed Ratings. The tool is built in the Annalisa implementation of Multi-Criteria Decision Analysis (MCDA) [5].

GRADE use four verbal levels to classify the quality ('certainty') of the evidence. In our conception of a decision support tool, adjusting for this is not a task to be left outside the tool for 'consideration'. MCDA requires quantitative inputs, so the levels are here mapped as Very low = 0.1; Low = 0.4; Moderate = 0.7; High = 1.0. Certainty-adjusted scores are thereby also calculated and displayed as a second pair in the interface.

Result

To engage with the tool, on a demonstration-only basis, go to <https://ale.rsyd.dk> and enter 1499 as survey ID. A sample output screen appears in Figure 2.

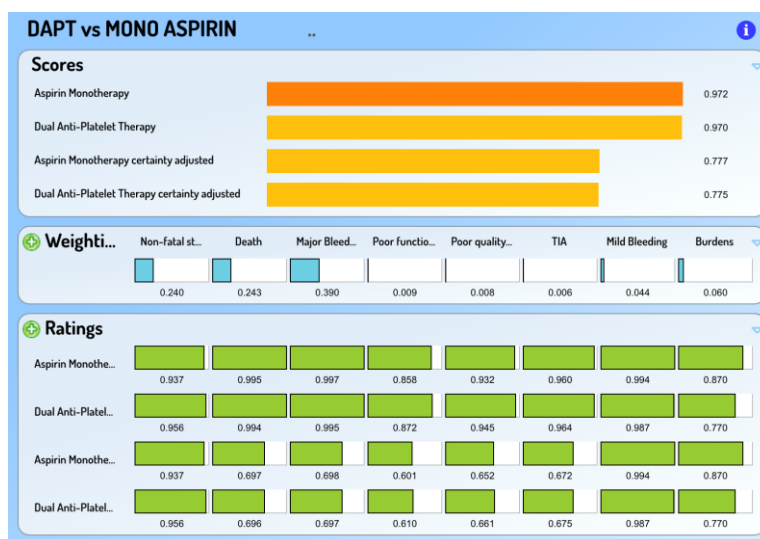


Figure 2. Screen capture from decision support tool

The criterion importance weightings in the figure are in line with those of the guideline panel but they actually produce an opinion favouring aspirin monotherapy, albeit at the third decimal place. But such near-equipose is produced by many sets of weightings and it remains after certainty adjustment. (These results are best confirmed by engaging with aid.) The *strong* recommendation for DAPT is therefore very surprising, since for GRADE this makes option discussion with the patient unnecessary.

Discussion

In addition to wider concerns regarding GRADE [6]

It is difficult to personalise recommendations from guidelines ... Usable decision aids should now be seen as one of the most important end products for evidence based medicine. [7] (pp1-2).

However the well-established difficulties arising in attempts to introduce decision aids into clinical practice need to be recognised [8].

Conclusion

In keeping with that of GRADE, MAGIC, and the BMJ, the aim is to provide support for more transparent and accountable clinical decisions, made within typical time and practice constraints and cognitive limitations of all parties. Person-centred care involves serious elicitation of individual's preferences at the point of care - as provided for in this add-on aid. The resulting opinion may legitimately deviate from expert-based guidelines.

Funding: The software used was installed at <https://ale.rsyd.dk> in a Danish National Board of Health funded project to develop decision support tools (J.nr. 1-1010/116/27).

Conflict of Interest: Jack Dowie has a financial interest in commercial use of Annalisa.

References

- [1] K. Prasad, R. Siemieniuk, Q. Hao, G. Guyatt, M. O'Donnell, L.Lytvyn, et al., Dual antiplatelet therapy with aspirin and clopidogrel for acute high risk transient ischaemic attack and minor ischaemic stroke: a clinical practice guideline, *BMJ* **363** (2018), k5130.
- [2] S.C. Johnston, J.D. Easton, M. Farrant, W.Barsan, R.A. Conwit, J.J.Elm, et al., Clopidogrel and aspirin in acute ischemic stroke and high-risk TIA, *New England Journal of Medicine* **379** (2018), 15-25.
- [3] Q. Hao, M. Tampi, M. O'Donnell, F. Foroutan, R.A.C. Siemieniuk, G. Guyatt, Clopidogrel plus aspirin versus aspirin alone for acute minor ischaemic stroke or high risk transient ischaemic attack: systematic review and meta-analysis, *BMJ* **363** (2018), k5108.
- [4] G.H. Guyatt, A.D. Oxman, R. Kunz, Y. Falck-Ytter, G.E. Vist, A. Giberati, H.J. Schünemann, GRADE: going from evidence to recommendations, *BMJ* **336** (2008), 1049-1051.
- [5] J. Dowie, J. M.K. Kaltoft, G. Salkeld, M. Cunich, Towards generic online multicriteria decision support in patient-centred health care, *Health Expectations* **18** (2013), 689-702;
- [6] P.C. Wyer, From MARS to MAGIC: The remarkable journey through time and space of the Grading of Recommendations Assessment, Development and Evaluation initiative, *Journal of Evaluation in Clinical Practice* **24** (2018), 1191-202.
- [7] M. McCartney, J. Treadwell, N. Maskrey, R. Lehman, Making evidence based medicine work for individual patients, *BMJ* **353** (2016), 1-6.
- [8] G. Elwyn, I. Scholl, C. Tietbohl, M. Mann, A.G. Edwards, C. Clay, et al. "Many miles to go ...": a systematic review of the implementation of patient decision support interventions into routine clinical practice, *BMC Medical Informatics and Decision Making* **2013**, 13 (Suppl 2), S14.