BMJ Oncology

Do shortcuts leave older patients short changed? The UK TOASTIE study

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To cite: Simcock R, Battisti NML. Do shortcuts leave older patients short changed? The UK TOASTIE study. *BMJ Oncology* 2024;**3**:e000538. doi:10.1136/bmjonc-2024-000538

Some decision-making in medicine is easy. Facilitated by clear guidance, powerful evidence and strong opinion we can often reassure our patients that a therapeutic choice is the right one. Things are not so easy in the arena of older persons oncology where the evidence base thins and attitudes to the outcomes that are most important vary significantly. Balancing risks and benefits becomes trickier. The use of chemotherapy for older adults is fraught with the dangers of undertreating those incorrectly judged to be frail and overtreating those not recognised as pre-frail.[1] A good decision requires a careful judgement of patient fitness and attitude which is best achieved by the Comprehensive Geriatric Assessment (CGA).[2] A CGA done well and done right requires expertise, multidisciplinarity and crucially, time. The 'Comprehensive' of the title is the most important clue.

In recognition of this, many have sought to find a quicker route to a good answer about what treatment a patient may be fit for.[3] Some of these scoring systems such as the G8 give a general picture of fitness and frailty that is more helpfully granular than ECOG (Eastern Cooperative Oncology Group) Performance Status, some have been designed as a specific tool with chemotherapy decisions in mind.[4] The CARG tool designed and first validated in US-based populations in 2011 by the US-based Cancer and Aging Research Group has been recommend in international guidelines including recent UK-based guides as an effective way to triage for more significant toxicities. A simple scoring system that is easily applied in the clinic might more safely allocate patients to better treatment choices. The strongest advocates of these scores have promoted them as useful adjuncts to decision-making or a triage tool for more comprehensive assessment. Other clinicians have aversions to 'checklist medicine', well documented by Daniel Kahneman in recording the work of Meehl, "I do not quite know how to alleviate the horror some clinicians seem to experience when they envisage a treatable case being denied treatment because a 'blind, mechanical' equation misclassifies him."[5]

It was therefore appropriate for the TOASTIE study (reported in this edition) to seek to validate it in a UK cohort.[6] The trial comes from the successful NOTCH (National Oncology Trainees Collaborative for Healthcare Research) group of trainees and is an excellent model for collating data across a wide network. In the study, a retrospective CARG score was applied to older patients and in this contemporary UK cohort failed to predict toxicity accurately.

The CARG score has now seen validation in some geographies and refutation in others.[4] Does this reflect practice, the validity of the score and what does that mean for the use of a score like this?

A few considerations may explain why the study did not validate earlier work on chemotherapy toxicity prediction tools. First, the collection of data on treatment toxicity and hospitalisations based on retrospective chart review may have introduced some degree of bias. The TOASTIE study population also included a higher proportion of patients diagnosed with gastrointestinal malignancies in contrast to earlier cohorts that may have also influenced results. Also, the much lower rates of toxicity observed within the trial compared with the CARG score development and validation studies, reflecting both changes in systemic therapy agents and supportive therapy protocols, may have made it more challenging to observe differences across CARG score categories. This highlights the importance of potential differences in chemotherapy decision-making in the context of ageing in the UK compared with other countries. Finally, the impact of chemotherapy toxicity prediction tools on treatment decision-making for older adults remains unclear and an area warranting investigation.

Linked

► http://dx.doi.org/10.1136/bmjonc-2024-000459

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Shared decision-making in older person's oncology needs a shared understanding of risk. One striking finding of the TOASTIE study was the level of mismatch between patient and physician around expectations of complication, 16 patients believed they had *zero* chance of complication despite this taking place *after* a consent discussion. At the very least, CARG may be a useful tool for having a better conversation around risk, consistently, with available evidence on the impacts of geriatric assessments on patient-centred communication.[7]

It is right that scoring systems such as the CARG are rejected as 'stop/go' mechanisms for treatment decisions, but this recent study suggests that the tool is not predictive enough even for a current proposed role in triage.

Do we need better scoring systems or better approaches? Maybe a shortcut to an answer is not appropriate and when we consider the impact of hospital admission for toxicity in older people our approach should be comprehensive after all.

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Contributors Both authors contributed equally to this work. RS acts as the guarantor.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests NMLB is President of SIOG and declares Advisory board: Pfizer, Abbott, Sanofi, Astellas; Travel grants: Exact Sciences, Pfizer, Lilly, Novartis; Speaker fees: Pfizer, AbbVie, Roche, Sanofi, Novartis, Servier, Gilead, AstraZeneca, Lilly, Exact Sciences, J & J. RS declares advisory boards for Exact Sciences and Novartis and Hologic, Speaker fees for Gilead, Novartis, AstraZeneca, Gilead.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Commissioned; internally peer reviewed.

Data availability statement Data sharing not applicable as no datasets generated and/or analysed for this study. All relevant data are included in the separate TOASTIE trial.

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