TRIAL SUMMARY: Learning to manage challenging cancer scenarios

The management of “challenging cancer scenarios” (CCS), including treatment toxicities and chronic cancer complications, has no defined curriculum in Canadian medical oncology training programs, despite their increasing complexity. Simulation-based-training and debriefing (SBTD) was compared to traditional didactic teaching for CCS management in this pilot study. Eleven residents were randomized to either SBTD (Arm A) or simulation with didactic teaching (Arm B). A high-fidelity SimMan™ mannequin was programmed with 3 clinical scenarios over 3 days. Each resident participated in a scenario followed by debrief or didactic lecture, and then wrote a
quiz on Day 1, Day 2 and Day 56.

Results: Overall performance (graded using the Ottawa Crisis Resource Management Global Rating Scale) improved with each subsequent simulation in Arm A: median scores were 4.5/7 (simulation 1), 5/7 (simulation 2), and 5.1/7 (simulation 3). On the contrary, in Arm B, median scores initially improved from 4.4/7 (simulation 1) to 4.8/7 (simulation 2), but then decreased to 4.1/7 in simulation 3. In Arm A, 85% of learners were satisfied with their educational method, compared to 40% in Arm B. The authors conclude that SBTD is feasible in medical oncology education.

TRIAL SUMMARY: Considering incremental survival improvements in treatment decisions

This study explored the relationship of clinical trial endpoints and decision making among medical oncologists. A survey was sent to Canadian medical oncologists (n=101, survey response rate 20%) using hypothetical scenarios in which they took the perspective of a cancer patient to decide between treatment options. Incremental improvements in overall survival (OS), time to progression (TTP), side effects (SE) and quality of life (QOL) were used to make treatment decisions in the adjuvant and metastatic setting.

Results: In the adjuvant setting, only 35% of medical oncologists would accept a smaller incremental improvement in OS at 5 years for less SE (see Figure 1). In the metastatic setting, 63% would accept a shorter incremental improvement in OS for less SE. For improved TTP of 2 additional months, 77% would accept more SE if it improved QOL. Academic medical oncologists were willing to accept a smaller treatment benefit as compared to community medical oncologists (4.5 vs 6.2 months, p=0.02). The endpoints deemed to be most important were OS (59%) and QOL (35%).

IN BRIEF

Already known
- The management of challenging cancer scenarios is a skill that must be developed in medical oncologists.
- Simulation-based training has proven effective in different areas of medicine.
- A variety of endpoints are measured in clinical trials that can help with decision making around treatment.

What these studies showed
- Simulation-based training and debriefing is feasible and effective in increasing the skills of medical oncology residents to handle challenging cancer scenarios.
- The debriefing component helped increase retention.
- Medical oncologists adopting the perspective of cancer patients made different tradeoffs between gains in overall survival, time to progression, quality of life and side effects, depending on whether they were considering an adjuvant or metastatic context.
- The outcomes they considered correspond well with patient-reported outcomes.

Next steps
- Simulation-based training should be tested more extensively and, if promising results are maintained, then a plan for nationwide access should be developed.
- Clinical trials must effectively measure and report endpoints that enable medical oncologists and patients to make appropriate treatment decisions.
Simulation-based training in medicine is a rapidly growing area that has been shown to improve technical skills, critical care management, and medical knowledge, teamwork and communication. It has been tested and used in many medical and surgical specialties, but until now, it had never been used with oncology trainees. The SIMONE study by Sud et al demonstrated that simulation in medical oncology education is not only feasible, but also potentially effective and satisfactory to learners. In this era of increasingly numerous, complex and unique treatment toxicities and cancer complications, a formal CCS curriculum should be an integral part of a training program. The ability to see, diagnose and treat these issues in a controlled environment while ensuring that objectives are met would be beneficial to all involved. Medical oncology is a specialty with many difficult scenarios requiring excellent communication and teamwork. If simulation-based training proves able to help trainees prepare for these situations and improve required skills, it would be worthy of implementation. However, only select centres across the country have access to a simulation centre. The results of the followup SIMONE study are awaited; should simulation prove to be of value to oncology training, then a plan for nationwide access should be developed.

Endpoints in oncology clinical trials are essential to demonstrate efficacy and tolerability of therapies, to appropriately evaluate the benefit of a therapy, and to guide the drug approval process. Numerous endpoints are employed in clinical trials. While OS remains the gold standard, surrogate endpoints are often used in their place. The study by Ezeife et al investigated the way in which clinical trial endpoints affect treatment decisions made by medical oncologists. They found that oncologists use endpoints to help with decision making differently in the adjuvant and metastatic setting. In the adjuvant setting, a minority of oncologists would accept decreased efficacy for improved tolerability, whereas in the metastatic setting, the majority would accept this tradeoff. Further, most would accept more SEs if QOL was improved. This echoes the patient-centred approach advocated in oncology. Particularly in the metastatic setting, QOL and patient wellbeing must be considered of upmost importance when embarking on a treatment plan. Over the years, organizations have mandated that patient-reported outcomes be included as endpoints in comparative clinical trials, and appropriate tools to monitor QOL have been developed. Based on the trial by Ezeife et al, medical oncologists are certainly taking QOL endpoints into account. As such, the research community must ensure that patient-reported outcomes are effectively and adequately measured and reported.

References: