



Mini Review

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Quality of Life in Patients after CRS+HIPEC: More Questions than Answers

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Abstract

Cytoreductive surgery with hyperthermic intraperitoneal chemotherapy (CRS+HIPEC) has become an accepted option for selected patients with peritoneal surface malignancies, with a clear survival advantage over palliative alternatives in appropriately staged disease. What happens to these patients' quality of life afterward is less settled. This mini-review summarizes the available evidence on post-HIPEC quality of life, the instruments used to generate it, and the reasons that evidence has struggled to influence funding decisions outside a handful of European countries. We argue that the absence of a disease-specific, economically translatable outcome measure is not a minor technical gap but a real obstacle to wider patient access.

Keywords: Chemotherapy; diagnosis; diarrhea; gastric cohorts; clinical

Introduction

Peritoneal surface malignancy was, for decades, treated as a terminal diagnosis with little to offer beyond palliation. CRS+HIPEC changed that calculus for a meaningful subset of patients, combining aggressive surgical clearance of visible disease with heated intraperitoneal chemotherapy aimed at residual microscopic tumor. The procedure is demanding-long operative times, extensive resection, and a heavy physiological load in the days that follow-and this has made its effect on quality of life (QoL) a persistent question in the surgical oncology literature. That question sits within a much larger one. Cancer accounted for an estimated 19.3 million new cases and 10 million deaths worldwide in 2020, with incidence projected to reach 28.4 million cases by 2040, and its economic burden in the European Union alone runs to roughly €100 billion a year [1,2]. Health systems facing numbers like these need reliable comparative evidence to decide where limited

resources go. CRS+HIPEC's survival benefit is well documented; whether its QoL profile is adequately captured-and whether that profile is expressed in terms decision-makers can actually use-is a separate matter, and one this review takes up directly.

Instruments and Findings to Date

QoL after CRS+HIPEC has almost always been assessed with tools designed for other purposes. The EORTC QLQ-C30, a generic oncology questionnaire, together with its colorectal (QLQ-CR38/CR29) and ovarian (QLQ-OV28) modules, and the FACT family of instruments (FACT-C, FACT-B, FACT-BMT, FACT-P), each anchored to a single tumor type, make up the bulk of the published literature [3]. None of these were built with peritoneal disease, as such, in mind. Despite that mismatch, a fairly consistent clinical picture has emerged. QoL typically falls in the first three postoperative months and then recovers to, or beyond, baseline within 6 to 12 months

[4,5]. The steepness of that dip and the speed of recovery both track with recognizable clinical variables-the extent of disease measured by the peritoneal cancer index, the completeness of cytoreduction achieved, and the severity of any postoperative complications [6]. In patients followed for several years rather than months, the recovery generally holds [7].

A single-center Greek series using FACT-C similarly documented improved physical and emotional well-being scores by 18 to 24 months after surgery, reinforcing that the pattern is not confined to any one health system or surgical group. The most significant recent development is the COMETE study, a two-round international Delphi consensus that defined a core set of patient-reported outcomes and experience measures specific to peritoneal malignancy-nine outcome domains and eight experience measures, agreed upon by patients and clinicians across French and Swiss centers [8]. This represents real progress toward a shared understanding of what matters to this patient population. It is not, however, a validated measurement instrument, and the final consensus notably excluded abdominal symptoms-nausea, diarrhea, constipation-that are common clinical concerns after HIPEC and were flagged during the Delphi process but did not survive to the final core set.

Where the Evidence Falls Short

Two related shortfalls stand out. The first is the absence of a fully validated, disease-specific QoL instrument built around peritoneal metastasis itself, independent of the organ the tumor originated in. As things stand, a colorectal-primary and an ovarian-primary patient undergoing an identical operation are scored on different, non-interchangeable instruments, which makes pooling data across tumor types-and thereby reaching the sample sizes needed for robust conclusions-genuinely difficult. The second shortfall is less discussed but arguably more consequential: none of the existing instruments translate into the metric health policy actually runs on. Reimbursement decisions and health technology assessments are built around generic, preference-based utility measures-the EQ-5D chief among them-that convert a patient's health state into a single index feeding a cost-per-QALY (quality-adjusted life year) calculation [9].

This is what allows a hip replacement, a new oncology drug, and a surgical intervention like HIPEC to be compared on the same axis, however different they are clinically. A FACT-C or QLQ-OV28 score, however clinically informative, cannot be converted into that currency. This is not a purely theoretical concern. HIPEC is reimbursed through the DRG hospital financing systems of Germany, France, and Sweden, where patients incur no direct cost. In Greece, it receives no state coverage at all, and patients pay out of pocket [10]. The difference is not a disagreement among clinicians about whether the therapy works-the surgical and oncological communities in all these countries broadly agree that it does. It reflects, at least in part, whether the evidence supporting HIPEC has ever reached each system in a form its funding machinery is built to process.

Toward Better Evidence

Closing this gap likely requires three things happening

together. QoL studies in this population should pair disease-specific instruments with a generic utility measure such as EQ-5D-5L from the outset, rather than relying on retrospective mapping between the two. Outcome measurement should be standardized across tumor types, ideally through an instrument built for peritoneal metastasis as a clinical entity rather than for its tissue of origin, so that data can be pooled across colorectal, ovarian, appendiceal, and gastric cohorts. And results should be reported, where possible, as cost per QALY gained rather than as isolated subscale scores-a format that gives a reimbursement committee something to act on, rather than something to interpret. No instrument meeting all of these criteria currently exists. Developing one-validated against existing tools, built around the peritoneal disease process itself, and designed from the start to sit alongside a generic utility measure-is, in our view, the most direct path from the clinical evidence already in hand to the kind of policy evidence still missing.

Conclusion

The clinical case for CRS+HIPEC in well-selected patients is not seriously contested. Whether health systems fund it as a matter of course is a separate question, and one currently being answered without the standardized, comparable evidence it deserves. The field has produced solid clinical knowledge about how QoL evolves after this procedure; what it has not yet produced is a way of measuring that evolution in terms health economics and government reimbursement systems are built to use. No instrument meeting all the criteria outlined above currently exists-one validated against established tools, built around the peritoneal disease process itself rather than its tumor of origin, and designed from the start to sit alongside a generic utility measure. Developing one is, in our view, the most direct path from the clinical evidence already in hand to the kind of policy evidence still missing. Until those changes, quality of life after HIPEC will remain, as our title suggests, a subject with more questions than answers.

Acknowledgment

None.

Conflict of Interest

No Conflict of Interest.

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