

# Moving Forward Through Consensus: A Modified Delphi Approach to Determine the Top Research Priorities in Orthopaedic Oncology

Schneider et al. (2017)

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## For which topic were research priorities identified?

orthopedic oncology

## In which location was the research priority setting conducted?

international

## Why was it conducted at all?

Sarcomas are a rare and heterogeneous group of cancers that represent 1% of all malignancies. However, as a result of their clinical behavior, multidisciplinary management, and complex multimodal treatment, the impact to patients is significant and the cost of care is substantial. Moreover, the skeleton is the third most common organ affected by metastatic cancer. In the advent of improved medical treatment of many cancers, bone metastases are becoming increasingly prevalent because patients with cancer are living longer with their disease. Many critical questions surrounding the surgical management of patients with bone and soft tissue tumors and metastatic bone disease remain unanswered, but funding to support prospective clinical research is meager in comparison to basic science research. Furthermore, a recent qualitative study determined that orthopaedic oncology collaborators are enthusiastic to conduct further research, provided that the research questions are feasible and address clinically relevant endpoints. Therefore, it is important to identify research priorities through a systematic and thoughtful process.

## What was the objective?

to prioritize research questions within the field so that the Musculoskeletal Tumor Society, and other relevant professional societies, can direct the limited human and fiscal resources available to address the priorities that the stakeholders involved believe will have the most meaningful impact on orthopaedic oncology patient care

## What was the outcome?

a ranking list of 10 research questions

## How long did the research prioritization take?

April 2016 - November 2016

## Which methods were used to identify research priorities?

Delphi

## How were the priorities for research identified exactly?

Step 1: Delphi round 1: participants were asked to review literature and to identify a maximum of three research questions that they believed most urgently needed answering to guide patient care, 178 questions were proposed. Step 2: data processing: resulting in 69 research questions. Step 3: Delphi round 2: participants were asked to individually rate each of the 69 candidate research question based on five criteria, research questions that met a priori consensus thresholds were brought forward to consensus panel meeting for facilitated discussion. Step 4: Delphi round 3: consensus panel meeting: each participant anonymously scored each candidate research question, those questions that met predetermined criteria were brought forward for discussion and final ranking, participants were then asked to rank their top three research questions

## Which stakeholders took part?

Orthopaedic oncologists, orthopaedic surgeons, research personnel, funding agency representation, patient representation. Delphi round 1: 61 participants. Delphi round 2: 60 participants. Delphi round 3: 44 participants.

## How were stakeholders recruited?

The invitation was sent to all clinicians on the Prophylactic Antibiotic Regimens in Tumor Surgery (PARITY) network distribution list, which includes both individuals who have either expressed an interest or are actively participating in the PARITY trial as well as members of the Musculoskeletal Tumor Society (MSTS). Participants from the qualitative assessment and rating evaluation were invited to participate as well as representatives from patient advocacy groups, the MSTS, and OREF.

## Were stakeholders actively involved or did they just participate?

Stakeholders were mere participants of the research prioritization process; they were not actively involved in the