

American Association of Oral and Maxillofacial Surgeons' Anesthesia and Third Molar Extraction Benchmark Study: Rationale, Methods, and Initial Findings



Thomas B. Dodson, DMD, MPH,* and Martin L. Gonzalez, MS†

Purpose: Benchmark statistics are used in quality assurance/quality improvement processes. The purposes of the present report are to 1) review the rationale for a new specialty-specific benchmark study, 2) summarize the methods to create a practice-based research collaborative (P-BRC) designed for collecting data to create benchmarks, and 3) describe the characteristics of the P-BRC surgeon participants.

Materials and Methods: The study was designed as a prospective cohort study. We created a P-BRC composed of randomly selected American Association of Oral and Maxillofacial Surgeons (AAOMS) members in private practice in the United States, who agreed to enroll patients scheduled to receive anesthesia of any type in the office-based ambulatory setting. The study variables included clinician demographics and their P-BRC status, grouped as 1) invited, active participants, 2) invited, inactive participants, and 3) uninvited AAOMS members. The P-BRC participants collected data for dozens of variables from their patients related to anesthesia. If the procedure was third molar (M3) surgery, additional M3 procedure-specific data were collected. Data analyses were composed of computing descriptive and bivariate statistics. Preliminary sample size estimates suggested that the P-BRC should include 300 surgeons to produce estimates with a $\pm 5\%$ error.

Results: During the 1-year study interval, 642 surgeons (11.8%) were invited to join the P-BRC from a population of 5,455 eligible AAOMS members. The 124 active participants in the P-BRC contributed 6,344 subjects to the anesthesia data set and 2,978 subjects who had had 9,207 M3s removed to the M3 data set. The active participants in the P-BRC were younger and more likely to be board-certified than were the inactive participants ($P < .05$). Details of the anesthesia and M3 variables will follow in future reports.

Conclusions: Despite vigorous efforts, we did not achieve our stated goal of creating a P-BRC composed of a random sample of 300 AAOMS members. With the current P-BRC sample, variables with very high (>93%) or very low (<7%) frequency estimates will produce estimates with the desired range of $\pm 5\%$ error. The P-BRC includes a sample of self-selected, not random, participants and is well-characterized in terms of age, gender, board-certification status, academic degrees, and geographic distribution.

© 2016 American Association of Oral and Maxillofacial Surgeons
J Oral Maxillofac Surg 74:903-910, 2016

Received from Department of Oral and Maxillofacial Surgery, University of Washington School of Dentistry, Seattle, WA.

*Professor and Chair, Associate Dean of Hospital Affairs.

†Senior Research Associate.

Dr Dodson is a consultant to the AAOMS, functioning in the capacity as the Associate Editor of the Journal.

Address correspondence and reprint requests to Dr Dodson: Department of Oral and Maxillofacial Surgery, University of Washington School of Dentistry, Health Sciences Building, Room B-241, Box

357134, 1959 NE Pacific Street, Seattle, WA 98195-7134; e-mail: tbdodson@uw.edu

Received October 20 2015

Accepted November 30 2015

© 2016 American Association of Oral and Maxillofacial Surgeons
0278-2391/15/015700

<http://dx.doi.org/10.1016/j.joms.2015.11.032>

Overview of American Association of Oral and Maxillofacial Surgeons Outcomes Assessment Projects

BENCHMARKING PROJECT

At its December 3 to 4, 2006 meeting, the American Association of Oral and Maxillofacial Surgeons (AAOMS) Board of Trustees (Board) reviewed a report on the Accreditation Association for Ambulatory Health Care (AAAHC) Board of Directors' meeting on November 5, 2006 prepared by the AAOMS representatives who attended the meeting, Drs Francis DiPlacido and Edwin Slade, Jr. Based on their report, a Board recommendation followed "that the AAOMS Outcomes Committee consider conducting short-term, clinically relevant studies, which could be used for benchmarking."¹

In March, 2007, the Board notified the Chair (Thomas B. Dodson) of the Special Committee on Outcomes Assessment (SCOA) and requested that the SCOA organize and implement short-term, clinically relevant studies that could be used to fulfill benchmarking requirements in the accreditation process for ambulatory and office facilities. The members of SCOA in 2007 were Drs Peter E. Larsen, Sidney B. Eisig, and Richard F. Scott. Dr Joseph F. Picuch was the Board Liaison to the SCOA.

PREVIOUS AAOMS-SPONSORED OUTCOME ASSESSMENT PROJECTS

The AAOMS Board's 2007 request for a benchmarking study is the latest in a history of assessing the practice patterns and outcomes of oral and maxillofacial surgeons (OMSs). In 1998, the AAOMS proposed and developed a data collection system to study patient outcomes among OMSs. Before the development of this data collection system, few data on OMS practice were available. A high-quality data collection system was developed, with input from the members of the SCOA chaired by Dr David H. Perrott. The committee members were Drs Thomas B. Dodson, Peter E. Larsen, and Richard A. Scott. SCOA, working with Outcome Sciences, Inc (Cambridge, MA), developed an efficient, secure, and comprehensive data collection system that ensured patient privacy and practitioner anonymity.

In 2001, SCOA implemented the AAOMS Outcomes Systems project, designed to create a practice-based research collaborative (P-BRC) composed of AAOMS members who collected data related to office-based anesthesia and third molar (M3) removal. The specific aims of these studies were to 1) track national practice trends, 2) estimate risk-adjusted outcomes of care, and 3) measure associations between different treatments and outcomes. The patient sample was a consecutive

series of subjects derived from the population of patients treated by OMSs in the United States who had undergone office-based ambulatory procedures during the 2001 calendar year. The P-BRC (ie, surgeon sample) was derived from the population of AAOMS members who volunteered to participate in the study (ie, not random), had Internet access, and treated patients in the office-based ambulatory setting. The initial surgeon sample for the anesthesia study was composed of 79 volunteer AAOMS members from 58 study sites. These surgeons enrolled 34,391 subjects into the anesthesia data set during a 1-year period. Sixty-three OMSs participated in the M3 study, which resulted in a database of 4,004 subjects who had 8,748 M3s removed. The anesthesia study remained open through 2010. Entries for more than 80,000 patients were entered by 113 OMSs during the study's duration. This project resulted in the publication of 8 articles, including an overview of the development of the outcomes data collection system, 4 anesthesia-related articles, and 3 reports related to M3 surgery.²⁻⁹

Given the sample size and comprehensive nature of the 2001 AAOMS Outcomes Systems project begs the question: "Why do another outcomes study to produce benchmarks?" Three major criticisms exist for dredging the 2001 data set to produce benchmarks. The first concern is that the 2001 study was not designed to produce benchmark statistics. It was designed to measure the outcomes and factors associated with those outcomes. The second limitation is that the surgeon sample was a convenience composed of self-selected AAOMS members who had volunteered to participate in the study. The sample describes very well the practices of the 79 surgeons who contributed cases to the anesthesia study sample, but might or might not represent the practice habits and patterns of the average AAOMS member. As such, the findings from analyzing the 2001 data might not be generalizable to the population of AAOMS members in private practice. Finally, the data are old and might not reflect current practice.

In 2008, responding to the AAOMS Board's request for benchmarking data, SCOA (Chair, Dr Thomas B. Dodson; members, Drs Kamal Busaidy, Sidney Eisig, and Peter Larsen; Board liaison, Dr Lanny R. Garvar) proposed expanding and improving the current data collection system by 1) using a random sampling method to create a sample of OMS participants that would be representative of AAOMS membership, 2) updating the existing data collection modules as needed, and 3) developing new data collection modules as needed.

The development of a scientifically valid benchmarking system was motivated by a desire to provide AAOMS members a valuable quality improvement tool meeting the following goals: 1) assist all AAOMS

Download English Version:

<https://daneshyari.com/en/article/6054453>

Download Persian Version:

<https://daneshyari.com/article/6054453>

[Daneshyari.com](https://daneshyari.com)