

2010



COLORADO AMBULATORY
SURGERY CENTER ASSOCIATION'S

QUALITY RESEARCH INITIATIVE RESULTS 2010





Dear Physicians, Insurance Providers, Administrators, Nurses and Interested Parties,

We are pleased to provide you with the second iteration of the Quality Research Initiative (QRI). CASCA is quite serious about being transparent to our patients, legislators, employers and others about how Ambulatory Surgery Centers operate in Colorado.

The frustration with escalating health care costs and insurance premiums is something we hear about each day from our patients. Candidly, we are puzzled that policymakers, insurance carriers and regulators have not truly embraced what the ASC industry is accomplishing. It is clear that the status quo is not accepted by working families, employers and others in Colorado. A paradigm change is needed.

It is our hope that the information provided in this report will represent a critical first step toward open and honest health care delivery in Colorado. We feel that consumer driven health care should be supported.

We respect our patients; to that end we want our patients to have credible information so they can make fully informed choices about who performs surgery and the appropriate facilities for that care.

We want to acknowledge and thank both our staff and consultants for working on this important research. In particular we thank Laura Appelbaum, Michele Bartlett, Megan Boelter, Matthew Meier and Rob Schwartz.

CASCA could not initiate this critically important research study without the support of Gold Sponsors Anthem and Health Inventures, and Silver Sponsors Eide Bailly, MedExec, Pinnacle III, QSE Technologies, and Spine One. These corporate organizations are true leaders.

Sincerely,



Craig Davis, MD
Vice President, Colorado Ambulatory Surgery Center Association



Rebecca Craig
Secretary, Colorado Ambulatory Surgery Center Association

Dear Physicians, Insurance Providers, Administrators, Nurses and Interested Parties,

Health care costs in the United States continue to increase year after year with no end in sight. Whether you're a blue-collar worker in Grand Junction, a farmer in Alamosa, or a white-collar worker in Denver, you're feeling the pinch of rising health care costs.

A Kaiser Family Foundation study released in 2007 found that health spending is rising faster than incomes and that the United States spends a larger share of its gross domestic product (GDP) on health care than any other industrialized nation. The Centers for Medicare and Medicaid Services (CMS) projected that health care expenditures, which were \$2.16 trillion in 2006, would rise to more than \$4 trillion in 2015. Per person health spending was \$7,110 in 2005 and was projected by CMS to increase to \$12,320 by 2014. Americans need to explore better options.

For more than three decades, Ambulatory Surgery Centers (ASCs) have emerged as a low cost and easily accessible alternative to traditional medical providers. While many ASCs are involved in a variety of voluntary efforts that further ensure patient safety and



Sue Hayes

Independent Consultant, Golden Business Services
Co-Chair, Quality Research Initiative Committee

satisfaction, CASCA's Quality Research Initiative has allowed Colorado ASCs to take their commitment to providing top notch patient care to a much higher level. This statewide survey will allow patients, business owners and insurance providers to get up-to-date and accurate information on the services provided by ASCs in Colorado and results of those procedures.

The research data clearly underscores that surgery centers are a quality choice for the people of Colorado. Furthermore, the testimony of the patients themselves truly reflects what we see every day in our patient satisfaction surveys.

We hope everyone is as excited about this second QRI report and the data it contains as we are to present it.



Debbie Teetzel

Administrator, Rocky Mountain Surgery Center
Co-Chair, Quality Research Initiative Committee

QUALITY RESEARCH INITIATIVE RESULTS 2010

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Working families and employers are seeking access to affordable care. The data contained in this Quality Research Initiative have presented some key findings that we feel address the concerns of our fellow citizens and the Colorado business community. The survey findings provide a comprehensive look at the state of operations and service needs in Colorado:

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Methodology

This report provides results from the CASCA Quality Research Initiative survey, based on data from surgeries performed in 2008. Surveys were sent to 52 CASCA member facilities and 62 non-member facilities, for a total of 114 statewide. Replies were kept anonymous to ensure total transparency.

The survey consisted of 29 questions, some of which included a number of separate items, on clinical data and quality of care. ASCs were directed to report information for all of 2008, and to complete as much of the survey as possible.

Colorado ASCs returned 50 usable Research Initiative Survey questionnaires, representing 44 percent of Colorado ASCs. Returned questionnaires did not always include responses to all questions. As a result, the number of responses varies by question. This also means that data for all questions may not reflect the exact same set of ASCs.

Limitations of Data

As with all surveys, one must be concerned about survey bias. The data reported may not be representative of all Colorado ASCs. This report is a tool and needs to be used in conjunction with other information.

“Hospital care accounts for more than one-third of the nation’s \$2.5 trillion annual health spending tab. And spending on hospital care — which rose nearly 6% last year — is expected to accelerate, government data show, driven both by increased use and rising prices.”

— Julie Appleby, Kaiser Health News

Patient Services

Outpatient Surgical Procedures and Patient Visits

In the CASCA survey, on average, 4,479 patients had outpatient surgical procedures at the reporting facilities in 2008. The number of patients served by the ASCs varies substantially, ranging from 166 to 21,094. Only one-fifth (20.0%) of facilities reported serving fewer than 2,000 patients in 2008, while 44 percent served 4,000 or more patients in that year. **Overall, reporting facilities performed outpatient surgical procedures on a total of 223,933 patients in 2008.** It should be noted that this number is a conservative estimate of the number of procedures performed by ASCs in 2008. ASCs were asked to report the number of patients who had outpatient surgical procedures, not the total number of surgical procedures. Therefore, patients who had more than one surgical procedure during a given visit were counted only once.

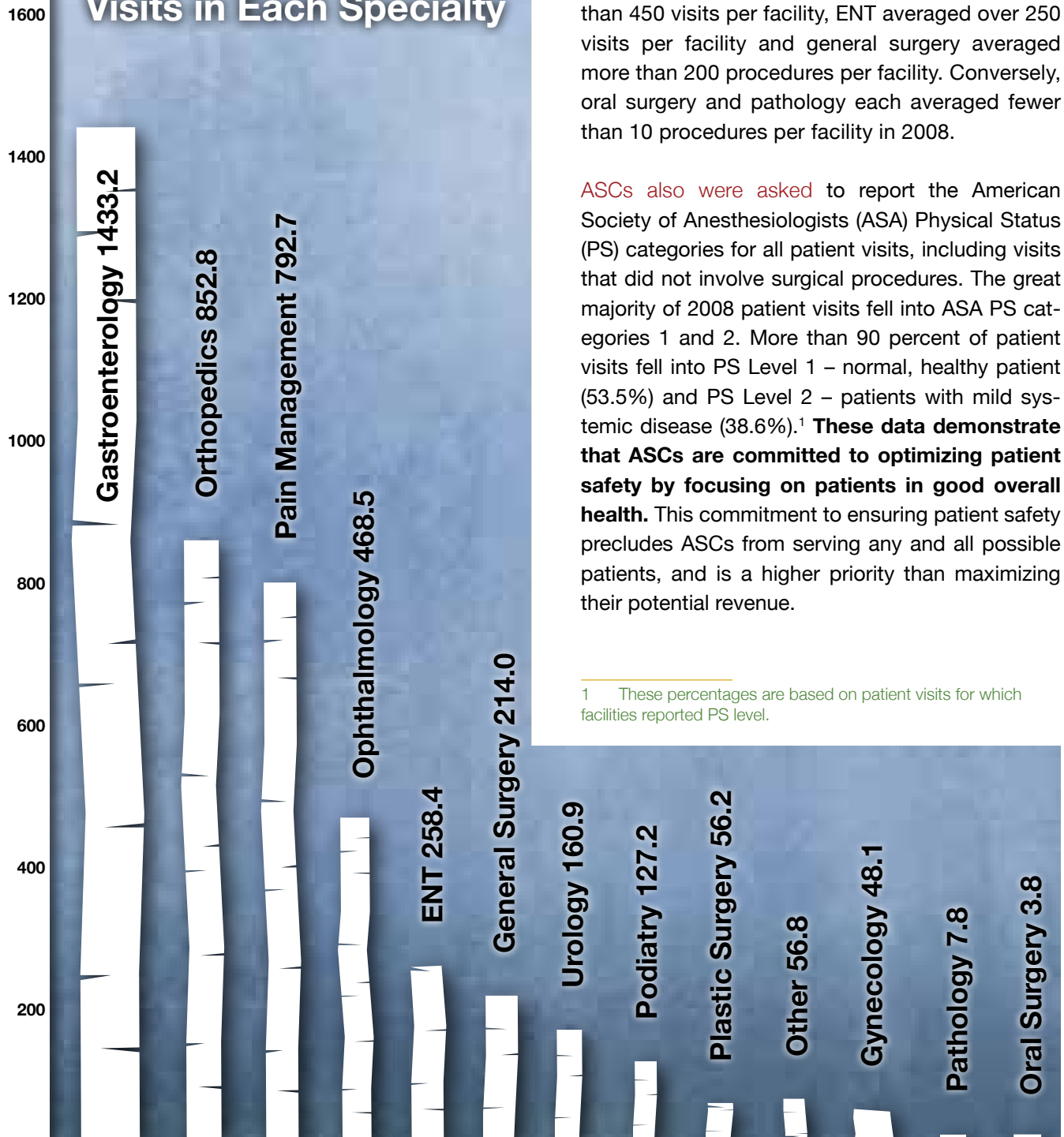
FACILITIES PERFORMED SURGICAL PROCEDURES ON A TOTAL OF **223,933 PATIENTS** IN 2008.

Types of Care Provided

In addition to the number of patients served by ASCs, participating facilities identified the specific types of services commonly provided by their centers. First, ASCs were asked to report the number of patient visits that fell into each of 12 major specialties as well as “other” specialties. Of these specialties, gastroenterology has by far the highest number of outpatient surgical procedures in 2008: 1,433 per facility on average. Orthopedics and pain management are other frequently used specialties: orthopedics averaged more than 850



Average (Mean) Patient Visits in Each Specialty

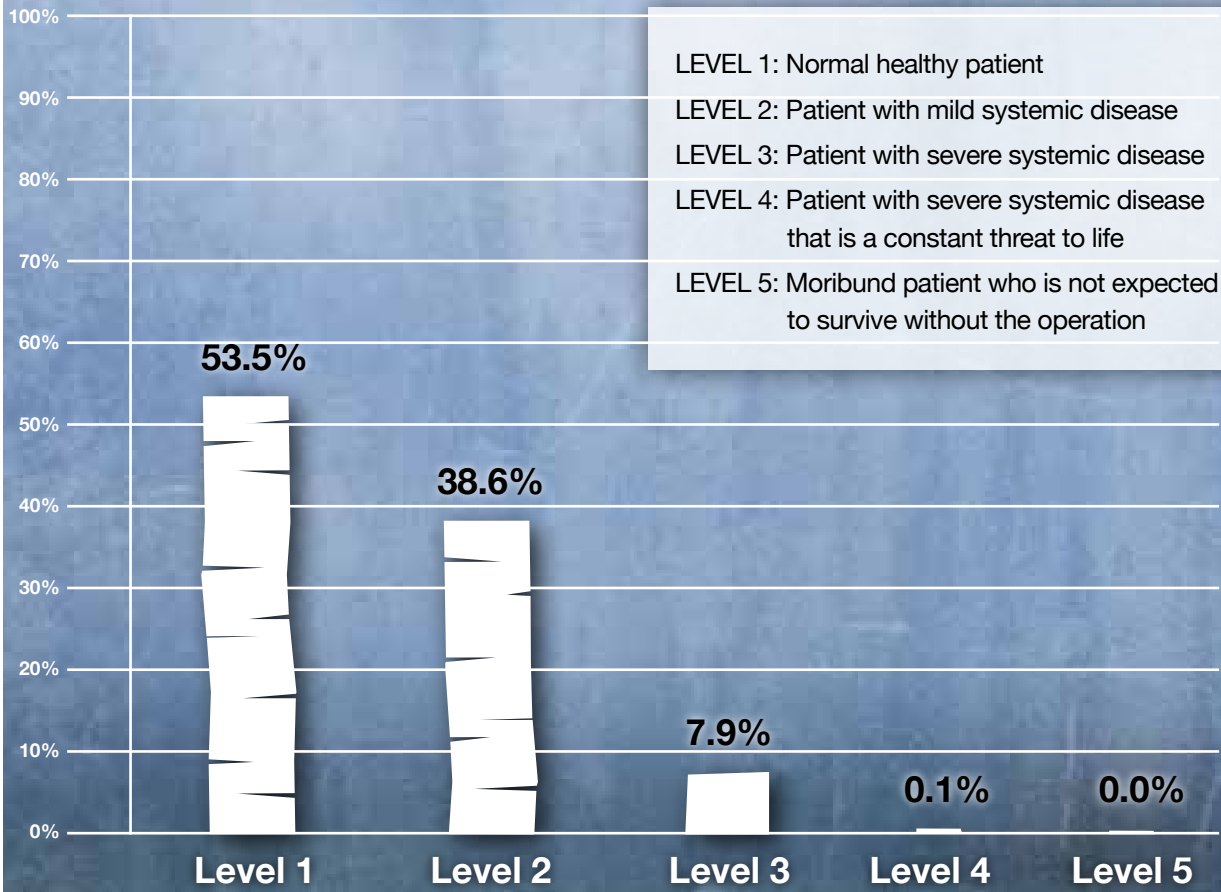


procedures per facility in 2008, and pain management averaged just below 800 procedures per facility. In addition, ophthalmology averaged more than 450 visits per facility, ENT averaged over 250 visits per facility and general surgery averaged more than 200 procedures per facility. Conversely, oral surgery and pathology each averaged fewer than 10 procedures per facility in 2008.

ASCs also were asked to report the American Society of Anesthesiologists (ASA) Physical Status (PS) categories for all patient visits, including visits that did not involve surgical procedures. The great majority of 2008 patient visits fell into ASA PS categories 1 and 2. More than 90 percent of patient visits fell into PS Level 1 – normal, healthy patient (53.5%) and PS Level 2 – patients with mild systemic disease (38.6%).¹ **These data demonstrate that ASCs are committed to optimizing patient safety by focusing on patients in good overall health.** This commitment to ensuring patient safety precludes ASCs from serving any and all possible patients, and is a higher priority than maximizing their potential revenue.

¹ These percentages are based on patient visits for which facilities reported PS level.

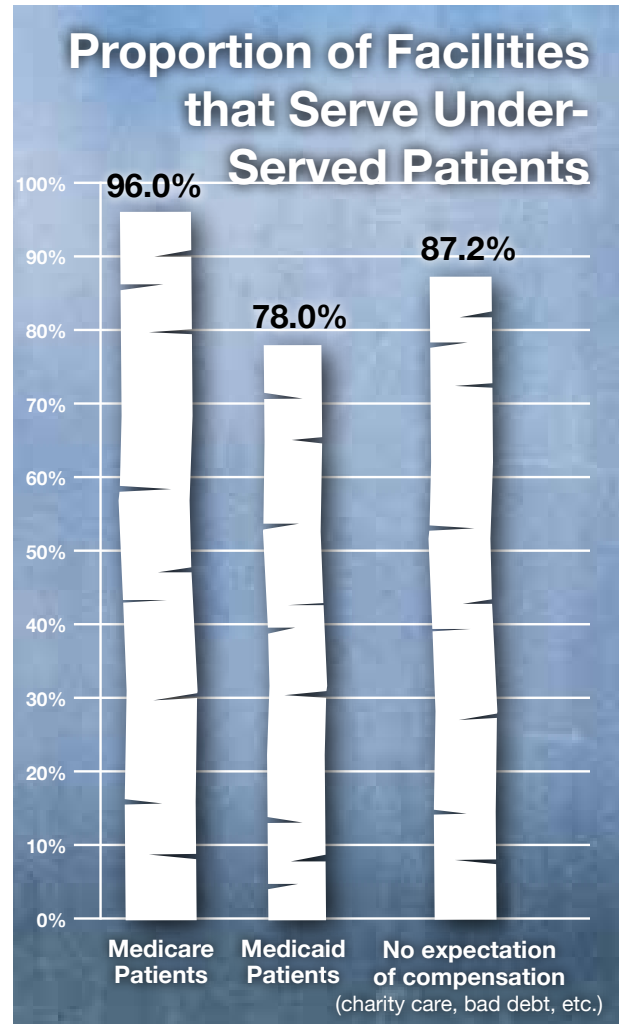
Proportion of Patient Visits at Each PS Level



Services to the Under-Served

Almost all (fully 96.0%) of Ambulatory Surgery Centers in Colorado serve Medicare patients, and most (87.2%) serve charity care patients, that is, patients for whom the facility does not expect to receive compensation.² More than three-quarters (78.0%) serve Medicaid patients.

² The proportion of ASCs that serve charity care patients is based on the 47 facilities that responded to this question.



DAY-TO-DAY OPERATIONS

To provide the services that they do, ASCs have a number of operational considerations — each of them balanced to maintain a high-level quality of service. The survey focused on several critical areas that affect service, policies and staffing, and certification.

Policies and Staffing

Finding and maintaining qualified personnel is just one of the major challenges for an industry that is experiencing a rapid increase in the need for quality health services — all within the confines of fiscal budgets.

At the core of any operation, health care or otherwise, is staffing. The CASCA survey requested ASCs to respond in two key areas: 1) the Nurse-to-Patient ratio and 2) the use of “Time-Outs” in the course of their operations.

“In the book *The Wisdom of Teams*, authors John Katzenbach and Douglas Smith observed, ‘Teams cannot succeed without a shared purpose; yet more teams than not in most organizations remain unclear as a team about what they want to accomplish and why.’ What is fascinating and compelling about the staffs in ASCs is that they understand their purpose and it is evidenced every day in Colorado surgery centers.”

— Craig Davis, MD



In October 1999 the state of California became the first state to mandate nurse-to-patient ratios in hospitals through the Patient Safety Act. Since then, state legislatures throughout the country have begun to explore the option of mandating nurse-to-patient ratios in all health care facilities. While many other health care facilities do not provide high nurse-to-patient ratios, ASCs continue to maintain a high staffing level in order to ensure the safety of all patients.

The number of nurses in a facility and how many of those nurses are assigned to individual patients plays a key role in patient outcomes. While there are

no data on the “optimum” number of nurses for a facility, an inadequate number of nurses per patient may hamper a facility’s effort to maximize patient care, ensure patient satisfaction, and meet the increasing number of patient visits.

Formal Registered Nurse (RN)-to-Patient Staffing Ratio Policy

More than three in five responding facilities (62.0%) reported that they have a formal, written RN-to-patient staffing ratio.

General Anesthesia and Post-Anesthesia Care Unit (PACU) RN-to-Patient Staffing Ratio

Seventy percent (70.0%) of facilities use general anesthesia. Two-thirds (67.6%) of facilities have at least a 1:1 staffing ratio, that is, at least one RN for each patient in the PACU. The remaining facilities have a 1:2 staffing ratio.

Number of RNs

Facilities employed 16 RNs on average in 2008.

Number of PRNs

Facilities employed seven PRNs on average in 2008.



RN-to-Patient Staffing Ratio in PACU

RN-to-Patient Ratio	Number of Facilities	Percent of Facilities
2:1 (2 RNs for each patient)	3	8.8%
1:1 (1 RN for each patient)	20	58.8%
1:2 (1 RN for each 2 patients)	11	32.4%

Note: The percentages in the table are based on the 34 facilities that responded to this question. Sixteen facilities did not respond; however, of these 16 facilities, one reported that they use a ratio of “1:1 for the first 15 minutes and 1:2 after the airway is clear.”

“Time-Out” Practices

All reporting ASC facilities have a policy requiring “time out” prior to a procedure. “Time out” is defined as a “definite halt in the proceedings prior to the start of the surgical case or procedure” to verify the identity of the patient and the location of the procedure site.

Proportion of Facilities Requiring Time Out Prior to Procedure



RN Certification

The ASCs reported on the certification rates of their RNs. The great majority – 84.2 percent – of facilities’ RNs are certified in Advanced Cardiac Life Support (ACLS) or Pediatric Advanced Life Support (PALS). Specifically, most (82.3%) RNs are ACLS-certified, and a majority (56.8%) of RNs are PALS-certified.

QUALITY OUTCOMES

Two closely monitored aspects related to post-procedure outcomes or post-operative outcomes are 1) Transfer rates and 2) Infection rates. ASCs monitor these rates closely in order to identify ways to continually improve the services and care they provide to patients.

Transfer Rates

Facilities reported very few unplanned transfers and status changes in 2008. On average, facilities had only 5.9 unplanned patient transfers and unexpected status changes. **Of the 223,933 patients who had outpatient surgical procedures in 2008, only 293 encounters resulted in an unplanned patient transfer or unexpected status change. This is an unplanned transfer rate of only 1.3 in every 1,000 outpatient surgical encounters.**

ASCs were asked to report the number of unplanned patient transfers in 2008 that were due to each of four reasons: postoperative pain, cardiac events, surgical complications and respi-

ratory events.³ **Surgical patients very rarely experienced unplanned transfers due to any of these significant complications.** The small number of transfers mainly resulted from surgical complications, followed by post-operative pain. However, in 2008, facilities averaged fewer than two unplanned transfers for each of these reasons. **Of the 223,933 total patients who had outpatient surgical procedures in 2008, only 273, or 0.1 percent, resulted in unplanned patient transfers or status changes due to surgical complications, postoperative pain, or a cardiac or respiratory event.**

³ If a patient had more than one of these reasons for transfer, facilities recorded only the most significant reason.

Significant Reasons for Unplanned Transfers or Status Changes

Reason	Total Number	Average Number per Facility
Surgical complications	87	1.8
Postoperative pain	69	1.4
Respiratory event	59	1.2
Cardiac event	58	1.2

Unplanned Returns to Operating Room or Emergency Room

Most (82.0%) facilities capture information regarding unplanned returns to the operating room or procedure room *within 48 hours of procedure completion*, and two-thirds (68.0%) capture information regarding visits to the emergency room *within 48 hours of discharge* in connection with surgery performed at their facility. On average, only 1.8 patients per facility experienced an

unplanned return to the operating room or procedure room *within 48 hours of procedure completion*, and 4.7 patients per facility visited the emergency room *within 48 hours of discharge* in connection with surgery performed at reporting facilities.⁴

⁴ These averages are based only on facilities that capture this information and reported it in the survey.

Infection Rates

In a study titled “Invasive Methicillin-Resistant Staphylococcus Aureus (MRSA) Infections in the United States,” which was published in the October 15, 2007 issue of the *Journal of the American Medical Association*, researchers found that invasive infections with MRSA may be twice as common as previously believed, and that 85 percent of invasive MRSA infections are associated with health care related treatment. Previous research had also found that many hospitals and long-term care centers have become breeding grounds for MRSA because bacteria may be transported from patient to patient by doctors, nurses and unsterile equipment.

Despite significant efforts by hospitals to combat infection rates, microbes are the most common cause of harm to hospitalized patients. The U.S. Centers for Disease Control and Prevention estimates that one of every 22 patients will get an infection while hospitalized — 1.7 million cases a year — and that 99,000 will die, often from what began as a routine procedure.

Health care facilities are confronting health care-associated infections with unprecedented



determination, and Colorado ASCs are working very hard to prevent the spread of dangerous infections in their facilities. In 2008, Colorado ASCs were extremely successful in preventing infections.

SEVEN INFECTIONS IN EVERY TEN THOUSAND OUTPATIENT SURGICAL PROCEDURES

Most facilities — 89.8 percent — reported that they currently use CDC definitions for surveillance of wound infections.⁵

Facilities reported extremely few post-operative wound infections in 2008 within 30 days of surgery, and the majority of these were superficial. Overall, facilities reported a total of 166 post-operative wound infections, or 3.4 post-operative wound

⁵ This percentage is based on the 49 of 50 facilities that responded to this question.



infections per facility on average, *within 30 days of surgery*. **This is a rate of seven infections in every 10,000 outpatient surgical procedures.** Of these infections, two in three (66.3%) were classified as “superficial,” one in three (30.7%) were deep incisional, and only three percent (3.0%) were in organs or spaces other than the incision.

Reporting facilities experienced virtually no sentinel events in 2008. Across all reporting facilities, there were a total of only nine sentinel events in 2008. The rate of sentinel events is only four in every 100,000 outpatient surgical procedures!

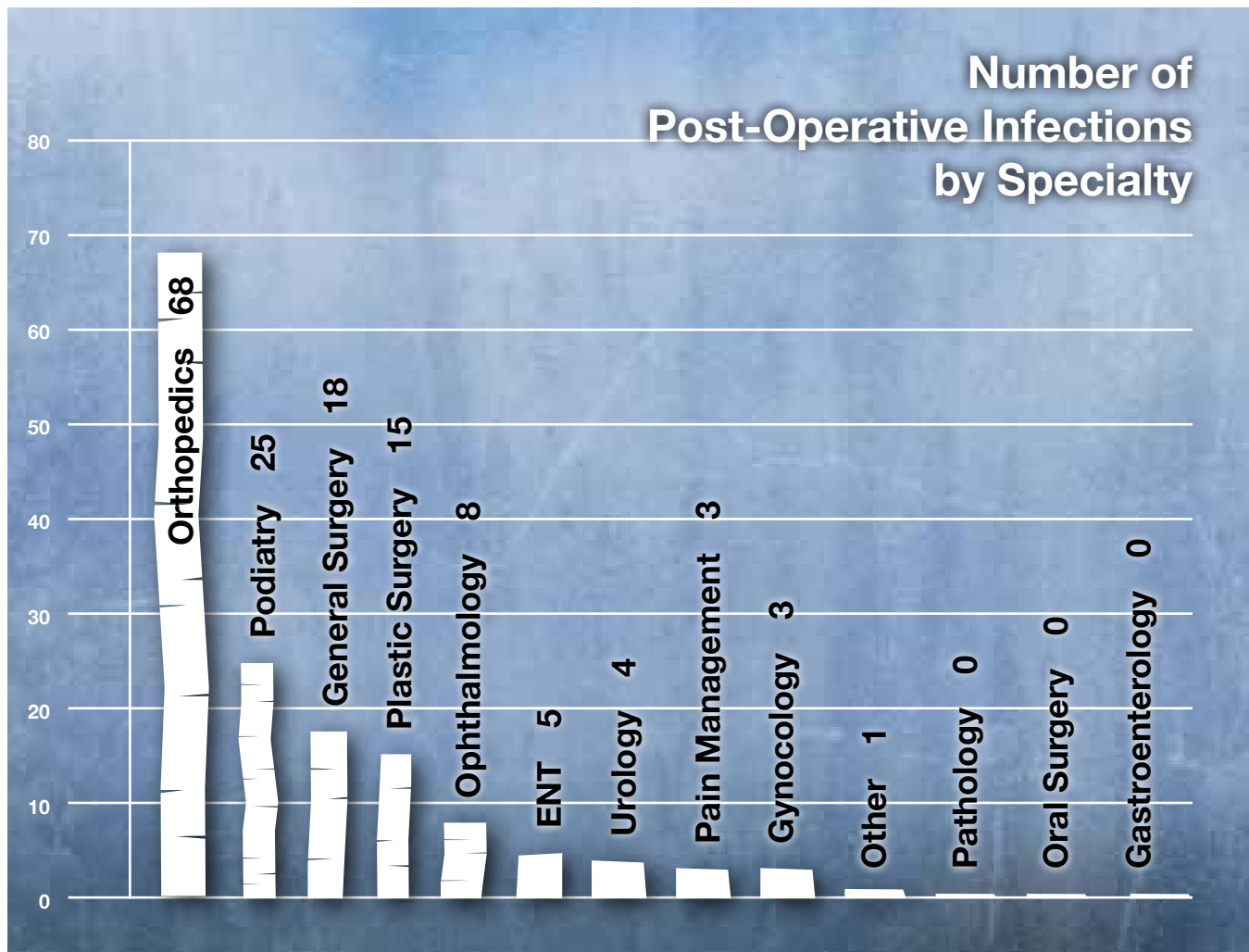
Sentinel Events in 2008

Type of Event	Number
Wrong site, patient or procedure	4
Hemolytic transfusion reaction	0
Serious adverse outcome from surgery/procedure (death, paralysis, coma or permanent loss of major function)	1
Medication error resulting in death, paralysis, coma or permanent loss of major function	2
Prolonged fluoroscopy with cumulative dose >1,500 rads to a single field	1
Patient fall	1

Of the very small number of post-operative infections, the greatest number — 68 — were in orthopedic surgery, followed by 25 in podiatric surgery, 18 in general surgery and 15 in plastic surgery. There were no reported infections in gastroenterology, oral surgery, or pathology.⁶



⁶ Facilities reported a specialty for 150 of the 162 total wound infections.



PATIENT SATISFACTION

Patient satisfaction is the hallmark of any successful ASC, and measuring patient satisfaction rates ensures that facilities are delivering top-notch medical service.

The focus on providing a positive patient experience involves everyone who works at the facility, from the most senior administrators to front-line staff such as nurses and technicians, so when patients report receiving excellent service, it speaks to the facility's clinical quality, safety, and staffing. Patient satisfaction is not just a "nice-to-have" in today's health care environment. Patient satisfaction fosters practitioner accountability and is a basis for competition in the health market.

"Measurement of patient satisfaction stands poised to play an increasingly important role in the growing push toward accountability among health care providers." (Christopher Guadagnino, Ph.D., "Role of patient satisfaction," *Physician's News Digest*, December 2003.)

All reporting Colorado ASCs said they have conducted a patient satisfaction survey, and fully 49 of 50 ASCs reported that patients completed a satisfaction survey in 2008. Surveys primarily are conducted by mail. The great majority of facilities that conducted patient satisfaction surveys in 2008 surveyed all patients (81.6%) or a random sample of patients (8.2%). Only 10 percent (10.2% — 5 facilities) surveyed a non-random sample of patients. On average, facilities had a survey response rate of 35.0 percent to their most recent patient satisfaction survey. **The vast majority (91.1%) of surveyed patients reported that they had a positive overall experience.**

Proportion of Surveyed Patients Reporting a Positive or Satisfactory Overall Experience



Conclusion

In this survey, Colorado ASCs have established what many in the industry have believed for a long time: **they offer a wide range of outpatient procedures while ensuring the safety of their patients.**

These facilities demonstrate their commitment to safety by carefully selecting patients with appropriate ASA PS scores, by ensuring high staffing ratios and by voluntarily seeking to meet strict state standards. These centers also demonstrate excellent outcomes. They have low complication rates, low infection rates, and high patient satisfaction scores.

Thank You CASCA Sponsors!

CASCA would like to very sincerely thank the following companies for their generous sponsorship of this report. Their support has been invaluable and we appreciate their commitment to the ASC industry and to the patients we serve. Thanks to their support Coloradans will now have vitally important information from which they can make informed decisions about their health care options.



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