



The ACS Case Log System: 2009 update

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Since the days of John Hunter, surgeons interested in advancing the profession have kept records of their outcomes. Most surgeons have kept such notes, or logs, of their cases as a means of tracking and improvement. These data are so important that for decades, the American College of Surgeons and the American Board of Surgery (ABS) have used logs to assess the breadth and depth of a surgeon's training and experience.

Until the development of the ACS Case Log System (also known as the Practice-Based Learning System), these records have been laborious to maintain. Additionally, paper-based records were difficult to analyze and were not uniform in format, so it was nearly impossible for a practicing surgeon to compare his or her results with those of others. The ACS Case Log System is changing that—with nearly 1 million cases entered since October 2005, surgeons can now quickly and easily maintain their personal case log, and confidentially compare their results against the aggregated results of thousands of other surgeons. The Case Log System has continued to evolve over time. In this report we will describe the current status, capabilities, and uses of the Case Log System.

Why use the Case Log System?

The Maintenance of Certification (MOC) process is easier to manage with the Case Log System. Instead of spending time chasing paper, classifying cases, and filling in the ABS case experience form, a surgeon can electronically transfer all of his or her case data to the ABS with a few mouse clicks. And the study for on-going education is streamlined with a surgeon's knowledge of his or her most common cases and their outcomes. This allows the surgeon to assess educational needs more precisely.

There are other practical reasons for surgeons to keep a standardized log of their cases. Patients are self-informed now, more than ever, and they expect more information from a surgeon than in the past. They want to know not only the published results of the procedures, but their own surgeon's personal experience and outcomes. The Case Log System allows surgeons to confidently and accurately state their overall experience, infection rate, complications, and overall outcomes.

Surgical groups can use their logs to better understand the nature of their practice, and whether their complication rates are higher or lower than case log aggregate averages, or when compared with the ACS National Surgical Quality Improvement Program (NSQIP) data. These groups can stay ahead of the curve in quality discussions with payors and hospital credentialing committees.

Responding to a survey of users of the Case Log System, surgeons gave several key reasons for why they participate in the program (see Figure 1, this page).

Practice-based learning and improvement

Lifelong learning is not only a competency mandated by the ABS, it is a way of life for sur-

Figure 1. Reasons for using the Case Log System

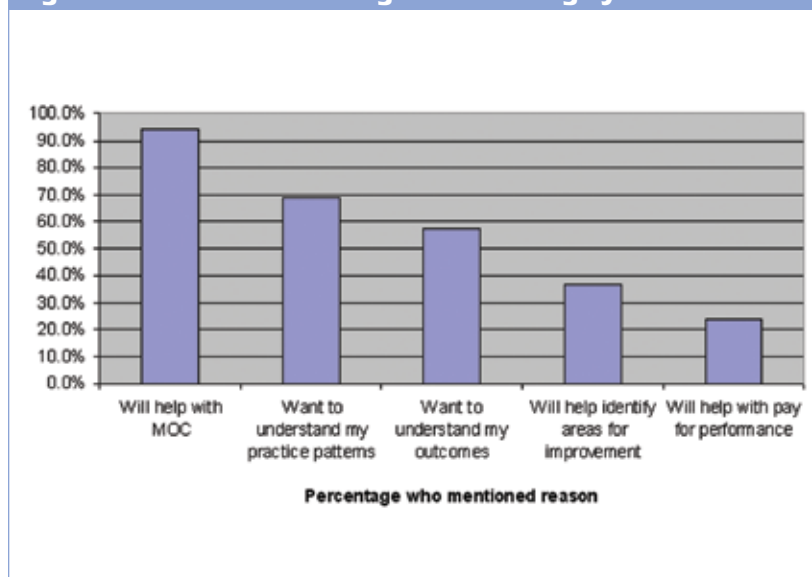


Figure 2. The practice-based learning and improvement cycle

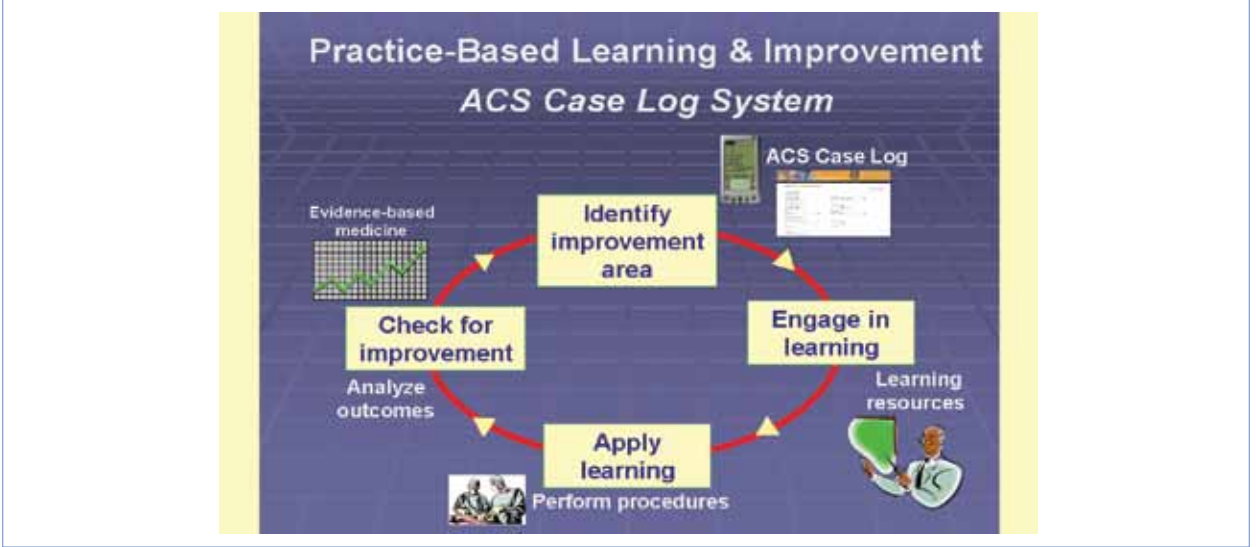


Figure 3. American Board of Surgery online recertification application

Reports Doc

View

ABS Certification

Export Settings

FROM DATE: 01/01/2008

TO DATE: 12/31/2008

Summary of Operative Experience

FOLLOWING IS A SUMMARY OF PROCEDURES REPORTED OVER THE PERIOD.

Section	Hosp1 Primary Surgeon(Northwestern Hospital)	Hosp1 Assistant(Northwestern Hospital)	Hosp2 Primary Surgeon(Vancouver General Hospital)	Hosp2 Assistant(Vancouver General Hospital)
Abdomen-biliary	8	2		
Abdomen-hernia	8			
Abdomen-spleen			2	
Alim Tr-large Int	5			

Figure 4. Case Log System data entry

Patient:(No MRN)

FIRST NAME: LAST NAME: MEDICAL RECORD NUMBER: DATE OF BIRTH:

Male Female Unknown

GEST. AGE (1 - 45 WEEKS): BIRTH WEIGHT (0.2 - 6.0KG): lbs

Dates, Location, Role:04/24/2007

PROCEDURE DATE: DATE ADMITTED: DISCHARGE DATE:

Outpatient Procedure?

LOCATION: ROLE: ASSISTANT:

Diagnoses and Comorbidities:

Procedures:49587 - Repair umbilical hernia, age 5 years or older; incarcerated or strangulated

Occurrences and Outcomes:Return 30 Days: Unknown - Death: Unknown

Notes:

geons and always has been (see Figure 2, page 12). Review of case log data can serve as a reference point for an individual surgeon's personal education plan. This cycle works for the surgeon in training, as well as for surgeons who have been in practice for decades.

Automated transfer of case log data for board recertification

A major advantage for users of the Case Log System is the automated transfer of case data to the ABS for recertification purposes (see Figure 3, page 12). This automation eliminates the painstaking manual entry of case experience data otherwise required for recertification.

Using the system for credentialing, re-credentialing, and privileging purposes

Medicare and The Joint Commission regulations governing hospitals require proof of current clinical experience and competence for credentialing, re-credentialing, and privileging. The Case Log System records the facility where each procedure was performed, and provides for aggregation of cases over surgeon-specified time periods for reporting purposes. Surgeons who practice at multiple hospitals and ambulatory surgical centers especially benefit from this, as the Case Log System provides combined reports of experience to satisfy all possible credentialing and privileging needs.

Ease of use

The original version of the Case Log System released in 2005 to the membership was designed to be quick and user-friendly. These qualities have always been a key goal for the Case Log System designers. On average, a case can be entered in less than two minutes. Software engineers work with practicing surgeons on ways to make the Web and handheld application easy to use and practical. Even surgeons who consider themselves “computer illiterate” can master the Case Log System in a short time. The pages are set up in a logical fashion, with many embedded aids to speed data entry (see Figure 4, page 13).

To enter a new case, a surgeon needs only to click on the “Create” tab. The entry form appears quickly. A minimum of demographic information on the patient is requested and the surgeon can choose how much of this he or she needs.

In this age of coding, every detail of assigning codes can be a chore. Fortunately, the system has a series of short cuts that makes this easy. Both the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and Current Procedural Terminology (CPT)* coding systems are embedded in the software. The system automatically remembers each surgeon’s most

*All specific references to CPT (Current Procedural Terminology) terminology and phraseology are © 2008 American Medical Association. All rights reserved.

Figure 5. “Hot list” function for procedure entry

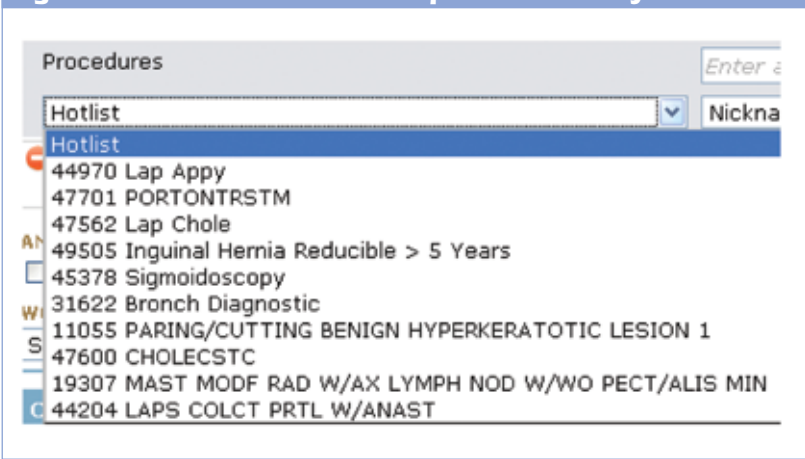


Figure 6. “Suggest a Code” function for procedure entry

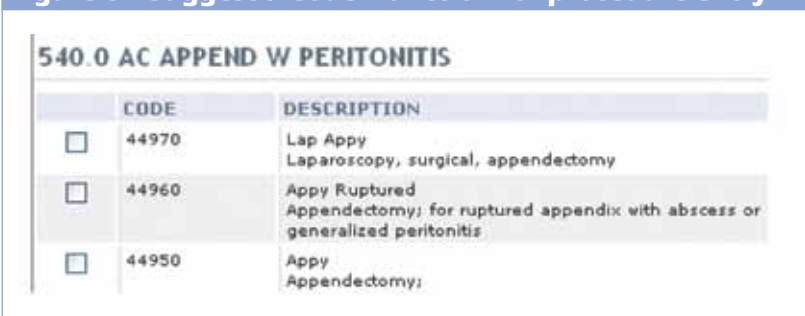


Figure 7. The Case Log System’s data import function

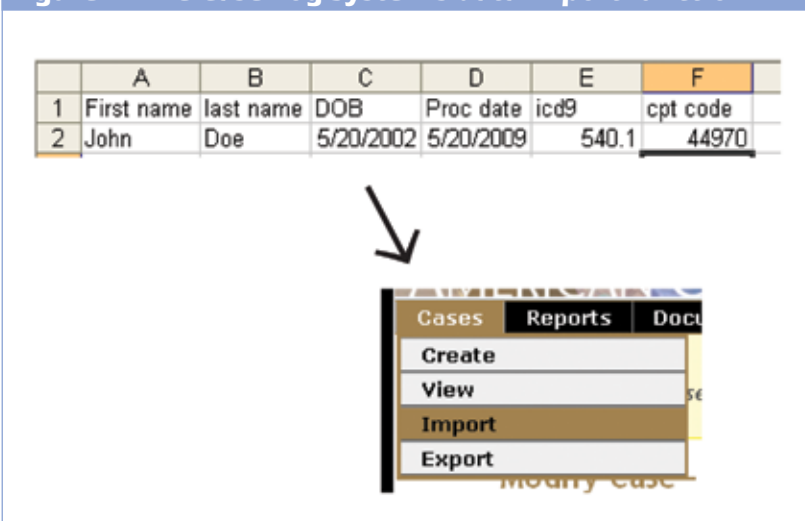
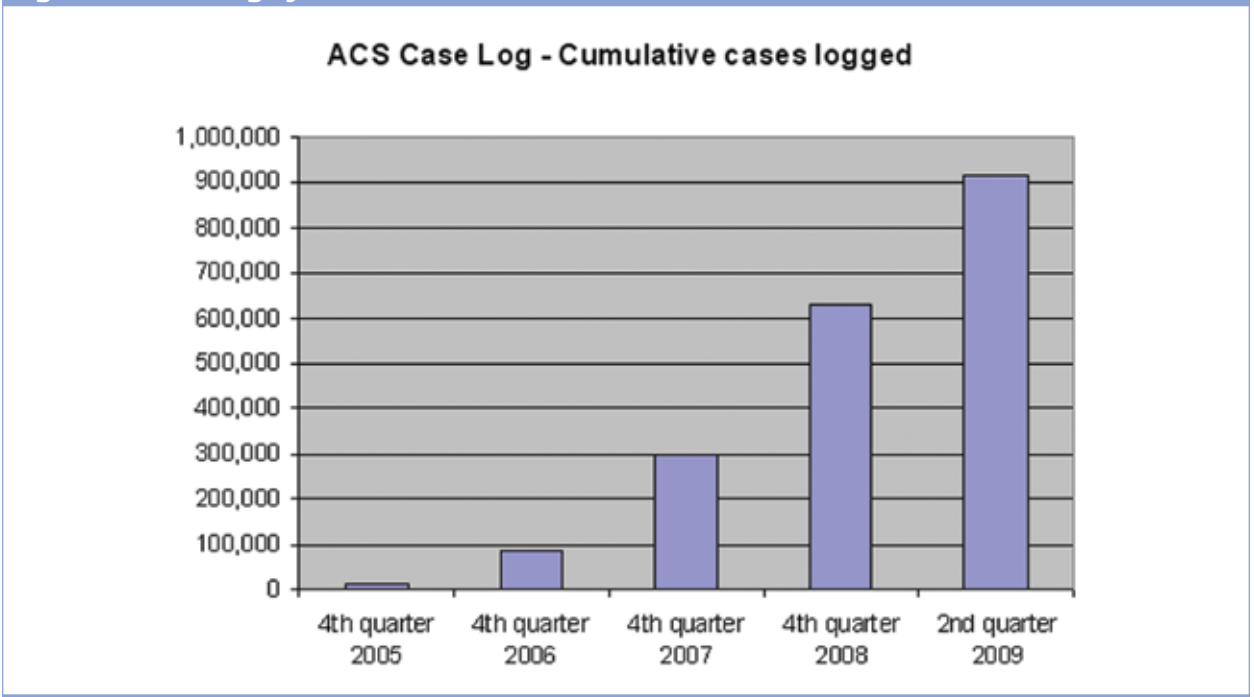


Figure 8. Case Log System case volume



common codes and puts them in a “Hot list” available for selection with a single click of the mouse (See Figure 5, page 14). The surgeon can also change awkward “code language” into “nicknames” so that the coding terminology is more familiar.

To assist in coding, the “Suggest a Code” feature lists the typical CPT (procedure) codes applicable to a given ICD-9-CM diagnostic code (see Figure 6, page 14). CPT code modifiers and their definitions are also available.

For those individuals who may have already created a computerized case log, the ACS Case Log System has an import function that can convert records to Case Log System format. A surgeon with hundreds or thousands of cases logged

Table 1. Procedure-specific complications

Colonoscopy	Colostomy
Bowel perforation	Stomal retraction
Failed completion of colonoscopy	Stomal bleeding
Inadequate bowel prep	Stomal stricture
Bleeding from biopsy or polypectomy site	Peristomal hernia
Aspiration	Stomal infarction
Perforation at polypectomy site	
Pneumoperitoneum	
Sedation-related complication	

over the years can instantly transfer them, and begin using the ACS Case Log System reporting and confidential case comparison features (see Figure 7, page 14).

Devices supported for user entry

These days, most surgeons carry some sort of smart phone or personal digital assistant (PDA) device for communication purposes, and to access information. To provide maximum flexibility for your individual workflow, the Case Log System is available on a variety of platforms:

- Internet access via a personal computer
- Palm handhelds, including smart phones
- Pocket PC (Windows Mobile), including smart phones
- iPhone (under development, anticipated availability by the end of 2009)
- Blackberry (under development, anticipated availability by the end of 2009)

System usage

Use of the Case Log System continues to grow at a rapid rate. The number of cases entered into the system has been doubling each year, and will exceed 1 million cases in the fall of 2009 (see Figure 8, page 15).

A broad spectrum of inpatient and outpatient cases are well represented in the Case Log System, including:

- Colonoscopies (>65,000 cases)
- Hernia (>55,000)
- Cholecystectomy (>50,000)
- Upper GI endoscopy (>35,000)
- Breast procedures (>45,000)
- Appendectomy (>20,000)



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- Colectomy (>16,000)
- Bariatric procedures (>9,000)
- Excise lesion (>8,000)
- Biopsy/excise lymph node (>7,000)
- Pediatric cases (>60,000)

What data are included in the Case Log System?

The Case Log System tracks approximately 20 data points for each case. These data points include some minimal demographic information, procedure dates, diagnosis and procedure codes, comorbid conditions, complications, and outcomes. Complications and comparative reports are specific for many of the procedures. Examples of procedure-specific complications are listed in Table 1 on page 15.

What kind of reports does the Case Log System generate?

The Case Log System provides many pre-defined reports. In addition, you can download your data into Excel and perform additional analysis as desired. The Case Log System pre-defined reports include:

- *Procedures by Frequency.* This report provides a basic count of procedures performed, and is the most popular report generated from the Case Log System.
- *Comorbidities by Frequency.* This report provides counts of the comorbid conditions in a surgeon's case mix.
- *Post-Op Occurrences by Frequency.* This report provides counts of a surgeon's complications.
- *Comparative Reports.* These reports show a surgeon's results grouped by CPT code, including the comorbid conditions, American Society of Anesthesiologists (ASA) class, postoperative occurrences, and outcomes. They also provide a comparison against the aggregate of the other Case Log System users, and for certain procedures, a comparison against data from the NSQIP.
- *Outcomes by Frequency.* This report provides counts of 30-day outcomes tracked in the system (death and unplanned return to the operating room).

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- *Wound Infections*. This report provides wound infection rates.

What about the Health Insurance Portability and Accountability Act of 1996 (HIPAA)?

Surgeons and patients are concerned about the security of sensitive patient data. The Case Log System protects the data physically and legally. All data are encrypted during transfers, and no one except the individual surgeon is allowed access to their own data. As part of the Case Log System registration process, there are two “click-thru” agreements. The first defines the ownership of the data as follows:

- Surgeon owns all identifiable data
- College owns de-identified aggregate data (excludes patient and surgeon IDs)

The second click-thru agreement is a Business Associate Agreement which, under HIPAA regulations, allows you to input protected health care information into the system.

In this way, the data is the surgeon’s alone, and the surgeon does not have to worry that anyone else is tracking his or her results. Patients can be assured the same level of privacy.

How do I get started?

In order to access the system, you must be a member of the ACS. First, you must register for the system by visiting <http://www.acscaselog.register.org>. A user ID and password are required to access the ACS members-only Web portal. There is information on this page to assist you, if you have questions regarding your user ID and password. Once you have registered for the system, you can directly access the Case Log System at <http://www.acscaselog.org>.

Conclusion

The era of outcomes-based medicine is here to stay. Surgeons throughout history have been outcomes-based individuals, but until now, they have not had access to the kind of technology necessary to create a personalized outcomes-based system in order to improve patient care, surgeon education, and MOC. The ACS Case Log System does all this and more, and is free

to members of the College. Register to use the system, and add your cases to the nearly 1 million already logged. Through honest reporting and analysis, surgeons will lead the way in the quality debate, instead of being led by those who have never experienced the burden of being responsible for a patient’s life. Ω

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