



Surgical Outcomes System

Surgical Outcomes System (SOS)

About Us

The Surgical Outcomes System (SOS) is an orthopaedic and sports medicine global registry, that is cloud-based and tablet-friendly. The intuitive platform enables surgeons to easily collect and analyze patient outcomes and procedures to address the demands of evidence-based medicine. SOS allows surgeons to remotely monitor their patients' outcomes over two years through patient-reported outcome questionnaires and clinician-reported objective measures. SOS will automatically email surveys to patients at predefined time points. The primary purpose of SOS is for monitoring and evaluating the outcomes of various standard of care orthopaedic and sports medicine medical procedures, leading to the development of evidence-based protocols for treating patients. Secondary purposes of SOS include analysis and publication of results, patient education and cost-effectiveness of treatment procedures and products.

Features and Benefits

- ▶ Cloud-based, HIPAA reviewed and IRB approved registry that allows for data collection, remote monitoring of patient data and comparative analysis of treatment outcome data.
- ▶ Requires only a few steps for the surgeon to enroll a patient into a study
- ▶ SOS leverages technology, engaging patients in their own healthcare through the automated surveys, video links, images, reminders and alerts.
- ▶ Surgeons can use SOS de-identified global average for marketing, providing evidence of successful surgical/treatment outcomes to their peers and future patients
- ▶ SOS is fully transportable. Both the patient portal and surgeon portal are accessible on PCs, tablets or smart devices.
- ▶ SOS allows for real-time clinical review and decision making of global effectiveness of various orthopaedic and sports medicine clinical procedures, leading to the development of evidence-based protocols for treating patients.
- ▶ Surgeons are able to create, save and edit "favorites." Favorites can be used to auto populate post-treatment details on surgeries that are performed routinely as a time-saving measure.
- ▶ SOS is a "global registry" with the patient portal available in multiple languages.

Workflow



BEGIN
Patient agrees to participate

1. Surgeon or designated staff **logs on** to outcome portal and **enrolls patient** into the study

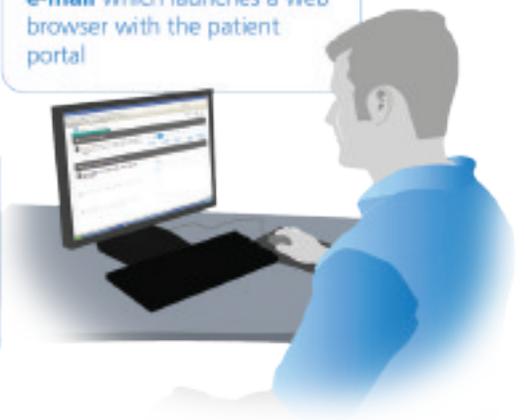
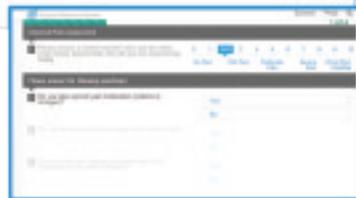


2. System **sends e-mail** notifications to patient at predefined time milestones



3. Patient **clicks on a link in the e-mail** which launches a web browser with the patient portal

4. Patient answers questions online



5. Surgeon or staff enters surgery related **post-op information** immediately following surgery



6. Surgeon **can review** patient's subjective and objective outcomes

7. Surgeon has the option to **compare patient outcomes** to the global average



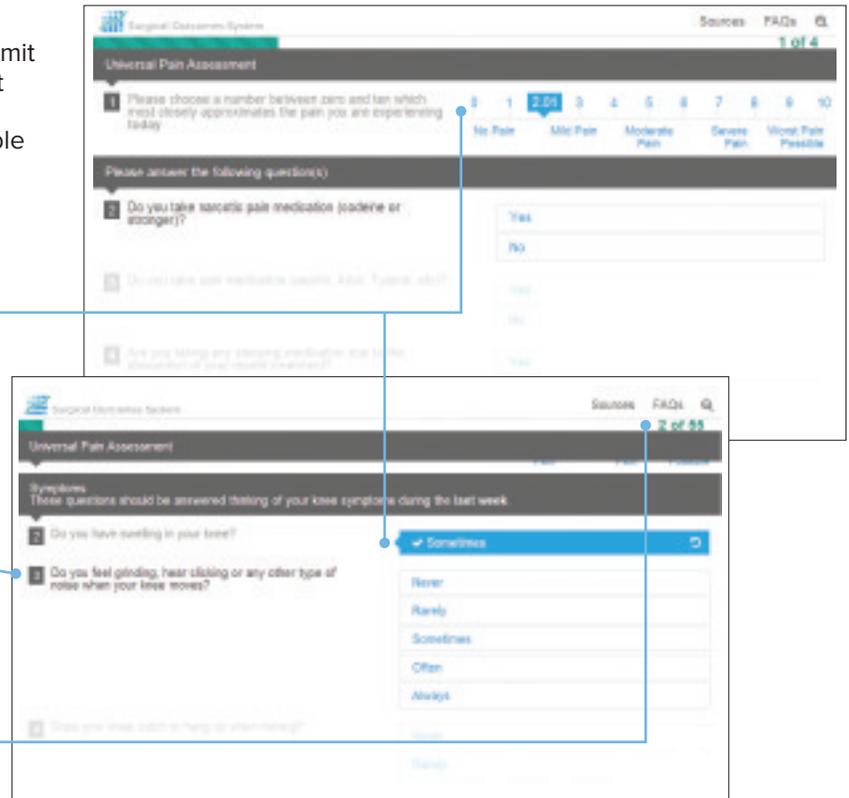
Patient Portal

The patient portal is an intuitive, easy-to-use, web-based application for enrolled patients to submit health outcome data over two years posttreatment using validated patient-reported questionnaires. The patient portal is fully transportable and available on any smart device or tablet.

The format of the patient portal is either multiple choice or scale-rating type, which makes the use of the interface easy and intuitive.

The patient can change his/her selection throughout the submission process. Questions cannot be skipped.

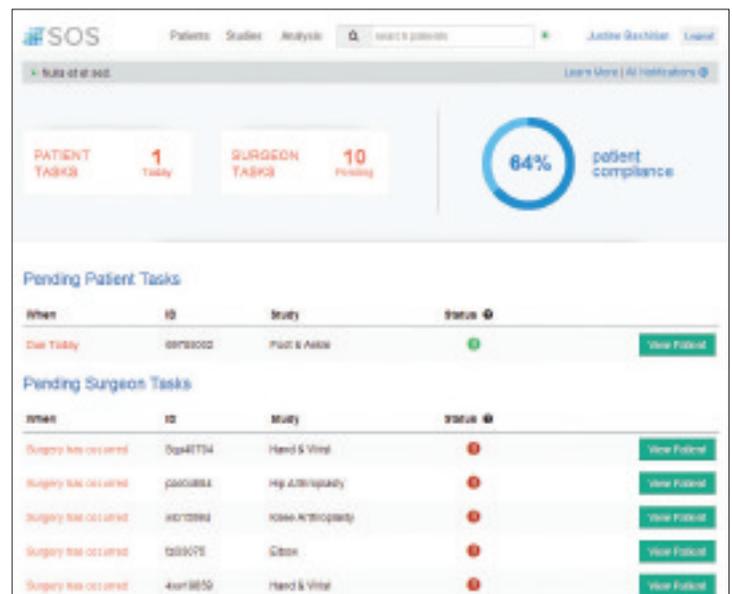
The system indicates survey progress.



User Dashboard

The surgeon portal is divided into three panels: Patients, Studies, and Analysis. Intuitive navigation and interactive features make the surgeon portal easy to use, while providing all necessary tools to monitor the patient's health progress over time and analyze the outcome data.

- ▶ All features and data are fully transportable and accessible from the SOS surgeon portal through a PC, smart device or tablet
- ▶ Patient compliance is highlighted upon login, providing accountability to achieve the goal of at least 80 percent
- ▶ Pending patient tasks and surgeon tasks are organized based on time deadline, keeping sites organized for follow-up
- ▶ Sites are able to view patient details through a direct click from the dashboard
- ▶ Patient search capability is available using custom ID, study or patient email address



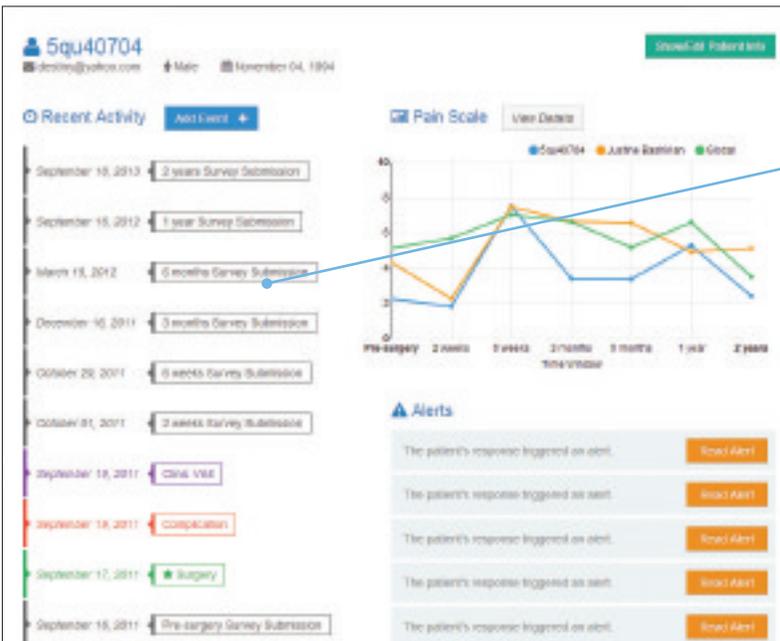
Patients

The Current Patients panel displays all enrolled patients by custom ID, email address and corresponding enrolled studies. Patients can be searched and organized by custom ID, email address or study.

Colored icons provide a visual reference as to which case is up-to-date and which case has missing data.

Enrolling a new patient is simple and fast, requiring only 15 seconds to enter demographic information.

ID	Email	Studies	PS	SS	View Patient
5qu40704	deviny@yahoo.com	Hand & Wrist	●	●	View Patient
pa04854	hp_arthroscopy@arthrex.com	Hip Arthroscopy	●	●	View Patient
924375	hp_arthroscopy@arthrex.com	Hip Arthroscopy	●	●	View Patient
vs13882	knee_arthroscopy@arthrex.com	Knee Arthroscopy	●	●	View Patient
81612151	knee_arthroscopy@arthrex.com	Knee Arthroscopy	●	●	View Patient
sh27034	shoulder_arthroscopy@arthrex.com	Shoulder Arthro...	●	●	View Patient
v878143	shoulder_arthroscopy@arthrex.com	Shoulder Arthro...	●	●	View Patient
t333075	elbow@arthrex.com	Elbow	●	●	View Patient



By clicking on the "View patient" button, sites are able to view the patient's record in a timeline fashion, highlighting events such as survey submissions, surgeries, clinic visits or complications.

Sites can easily add an event, edit patient information, and view patient outcomes compared to the site outcomes and the global de-identified average within the enrolled study.

Patients (Cont.)

Sites are able to enter treatment detail in 30 seconds or less with the intuitive dropdown menus.

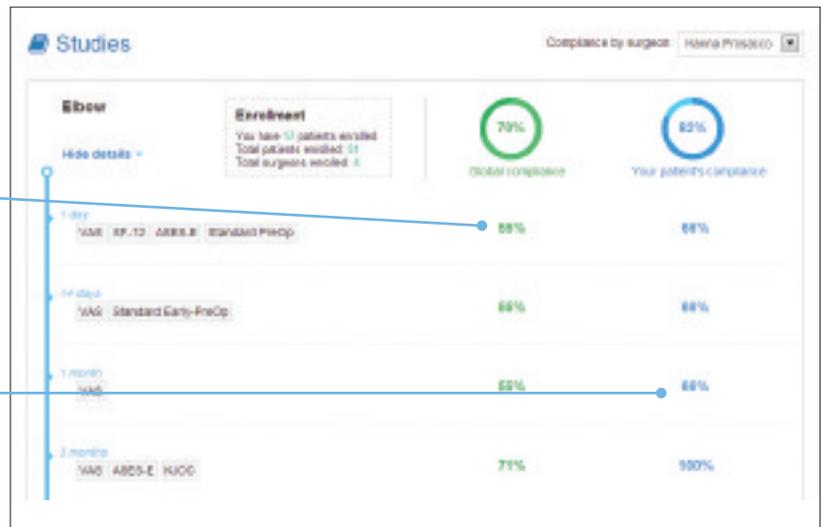
Surgeons are able to create, save and edit "favorite" templates, allowing for autopopulation of treatment detail.

Studies

Surgeons are able to view a summary of enrolled patients per study, as well as patient compliance per time point.

Number of patients enrolled and patient compliance of surveys are benchmarked with the global information.

Displaying patient compliance per time point allows sites to pinpoint areas of opportunity.

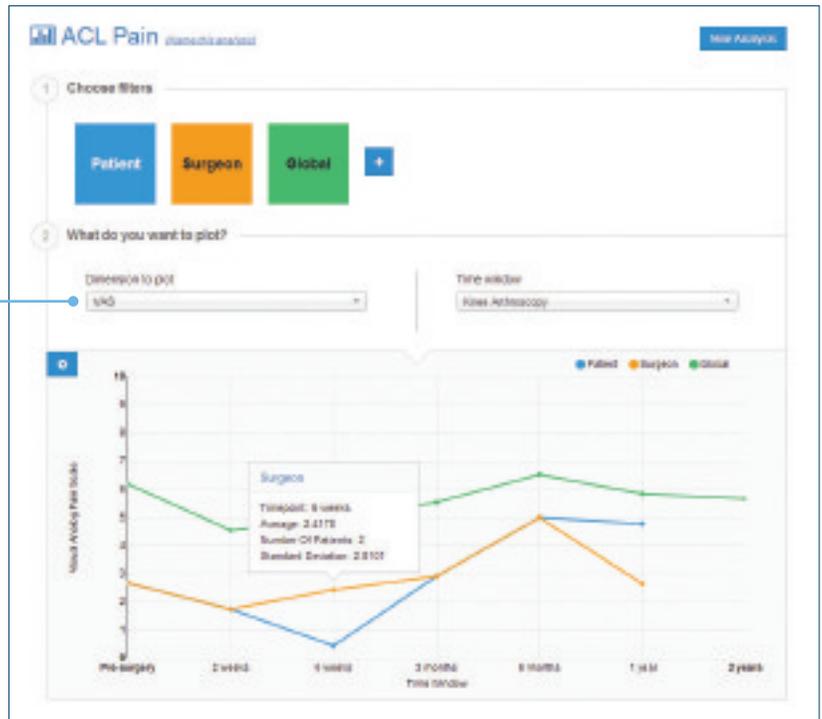
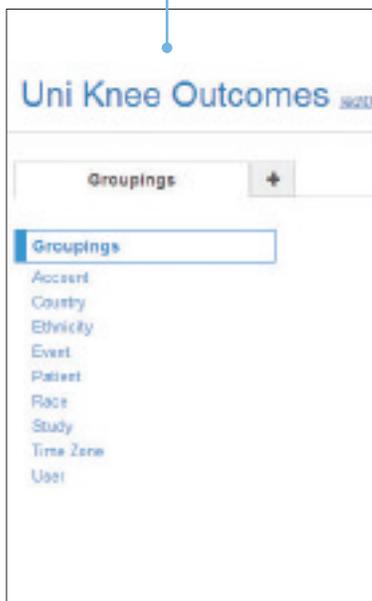


Analysis

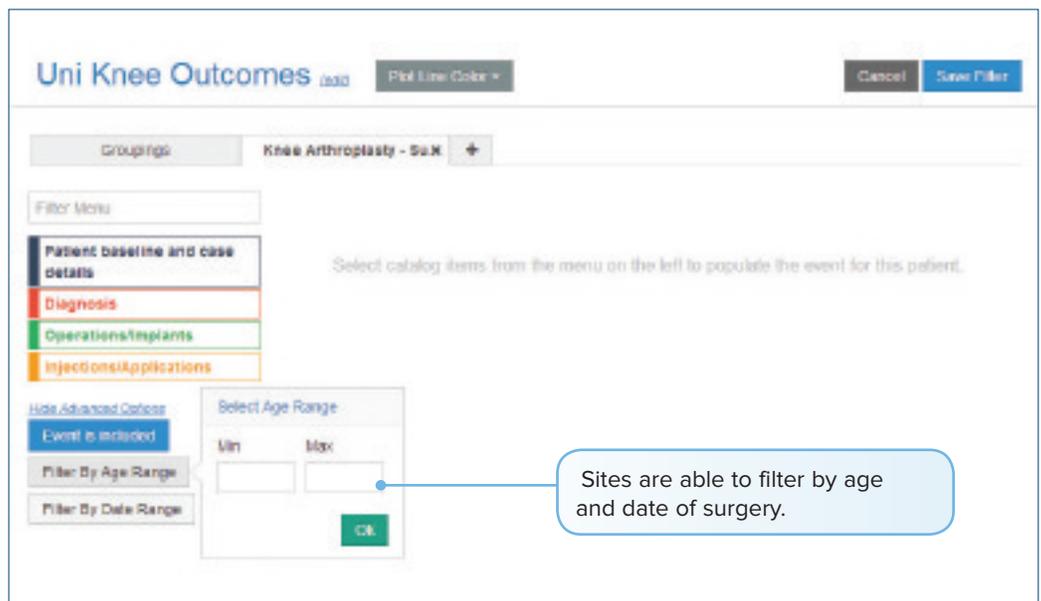
The Patient Analysis panel provides a graphical representation of the outcomes data. Sites are able to perform comparative analysis on individual outcomes, site outcomes or the global de-identified average by choosing filters. Data can be exported in raw data format or graphical format, and emailed as an image to patients for educational purposes.

Multiple patient events can be filtered within the same study or across studies, such as surgery details, complications, clinic visits, or survey submissions. Unlimited analyses can be performed.

Sites are able to analyze “groupings,” including or excluding criteria such as patients, study group, accounts, countries or demographics.

The screenshot shows the 'Uni Knee Outcomes' interface with a 'Groupings' dropdown menu open. The menu lists various criteria for filtering: Account, Country, Ethnicity, Event, Patient, Race, Study, Time Zone, and User.



The screenshot shows the 'Uni Knee Outcomes' filter menu. It includes a 'Filter Menu' section with categories: Patient baseline and case details, Diagnosis, Operations/implants, and Injections/Applications. Below this, there are options for 'Event is included', 'Filter By Age Range', and 'Filter By Date Range'. A 'Select Age Range' dialog box is open, showing 'Min' and 'Max' input fields and an 'OK' button.

Sites are able to filter by age and date of surgery.

Surgeons interested in utilizing the Surgical Outcomes System should contact SOS@arthrex.com, or their local Arthrex sales representative for more information.



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Advancing Evidence-Based Medicine

This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience and should conduct a thorough review of pertinent medical literature and the product's Directions For Use.

