

# Orpheus Medical

## Clinical Video Management and Visible Light Documentation

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# Robotic Surgery

**Workflow in St. Antonius ERI:**  
*Every surgery is recorded and broadcast for quality improvement*



- ▶ **What Can You Do?**
  - Record and broadcast 3D Full HD DaVinci® procedures
  - Live collaboration and teleconferencing
- ▶ **Where?**
  - Any department performing robotic surgery
- ▶ **How to do it with The Orpheus System?**
  - Efficiently record and broadcast 3D Full HD
  - Access videos on demand from anywhere
  - Store and share with EMR and PACS/VNA



# Complication Analysis



**Workflow in St. Antonius ERI:**  
*Real time analysis and post procedure editing of cases with complications into clips; bi-weekly review and analysis leads to lower complication rates*



- ▶ **What Can You Do?**
  - While the operation is still on, clinicians can review the surgery video in the OR to track root causes
  - Prepare clips from cases with complications
  - Flag the cases to build a catalog
  - review, analyze, learn and improve
- ▶ **Where?**
  - Surgery departments
  - Diagnostic labs
- ▶ **How to do it with The Orpheus System?**
  - Use the “time shift” feature to analyze an ongoing operation – from the OR or from remote
  - Use the Orpheus content management tools to create clips
  - Create catalogs of teaching files and cases for review
  - Use the Orpheus application to view anywhere and anytime



# Ophthalmology Surgery

**Workflow in Sheba  
Medical Center:**  
*Orpheus CAST  
connected to a digital  
microscope*

- ▶ **What Can You Do?**
  - Record procedure
  - Live remote consultation
  - Document findings in unified patient record
- ▶ **Where?**
  - Ophthalmology
- ▶ **How to do it with The Orpheus System?**
  - Connect the Orpheus CAST to scope or microscope
  - Live broadcast to remote expert for bi-directional audio-visual consultation
  - Centrally store and share with EMR



# Orthopedics Pre-procedure Documentation

## Workflow in Queen's Medical:

*Patient admitted to ER with shark bite; Surgeon documents injury and justifies above knee amputation*



- ▶ **What Can You Do?**
  - Document injury to justify course of treatment.
  - Document post surgery results and show patients
  - Create catalog of interesting and rare cases
  - Review cases
- ▶ **Where?**
  - Emergency Department
  - Physician Office
  - Orthopedic department and surgical suite
- ▶ **How to do it with The Orpheus System?**
  - Capture and upload using the secure Orpheus Mobile app or the Orpheus application
  - Review and compare using the web enabled Orpheus client application
  - Create catalogs of teaching files and cases for review



# Daily Peer-review



## Workflow in Bnay Zion Medical Center:

*physicians meet every morning to review the interesting cases from the previous day; continuous learning and improvement process*



- ▶ **What Can You Do?**
  - Daily peer-review
  - Prepare clips from interesting cases for grand rounds discussions
  - Educational sessions in a teaching facility
- ▶ **Where?**
  - Gastroenterology
  - Surgery departments
- ▶ **How to do it with The Orpheus System?**
  - Use the Orpheus content management tools to create clips
  - Create catalogs of teaching files and cases for review
  - Use the Orpheus application to view anywhere and anytime





# Plastic Surgery



## Workflow in Bnay Zion Medical Center:

*Physician takes pre and post surgery photos and documents in central patient record*



- ▶ **What Can You Do?**
  - Document pre and post plastic surgery treatment.
  - De-identify patient to protect patient privacy
  - Create catalog of interesting and rare cases
  - Review cases
- ▶ **Where?**
  - Plastic surgery
- ▶ **How to do it with The Orpheus System?**
  - Capture and upload using the secure Orpheus Mobile app or the Orpheus application
  - De-identify pictures using the web enabled Orpheus client application
  - Create catalogs of teaching files and cases for review





# Wound care and Burn units



## Workflow in Sheba Medical Center:

*Nurse in extended care facility uploads wound images from digital camera; physician gets notification from EMR and immediately provides diagnosis*



- ▶ **What Can You Do?**
  - Track healing of wounds, bed ulcers, diabetic foot, etc.
  - Identify trends of wounds and prevent deterioration
  - Alert specialist to review wounds and start action plan
- ▶ **Where?**
  - Burn unit
  - General departments
  - Extended care facilities
- ▶ **How to do it with The Orpheus System?**
  - Capture and upload using the secure Orpheus Mobile app or the Orpheus application
  - Send notification to EMR once image is uploaded
  - Review and compare using the web enabled Orpheus client application

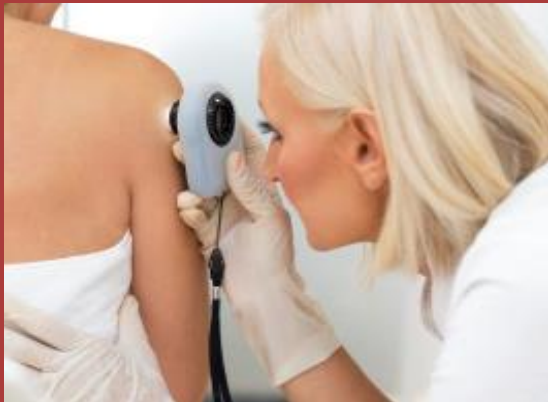


# Dermatology



## Workflow:

*taking pictures using Orpheus Mobile and upload to patient record; review and compare history; diagnose and plan treatment*



- ▶ **What Can You Do?**
  - Track healing of moles, psoriasis, melanoma
  - Identify trends
  - Follow up, diagnosis and treatment
- ▶ **Where?**
  - Dermatology clinic
  - General Practitioner
- ▶ **How to do it with The Orpheus System?**
  - Capture and upload using the secure Orpheus Mobile app or the Orpheus application
  - Complete the patient medical record (EMR, VNA)
  - Review and compare using the web enabled Orpheus client application



# Remote Pathology in Diagnostic Labs



**Workflow in OSF:**  
*Orpheus CAST  
connected to multiple  
sources including the  
Digital Microscope;  
clinician puts sample  
under microscope and  
broadcasts to remote  
pathologist*

- ▶ **What Can You Do?**
  - Connect the pathologist remotely to the lab
  - Accurate and time saving diagnosis
  - Document findings in a unified patient record
- ▶ **Where?**
  - Pulmonary labs
  - Women's health (frozen biopsy)
- ▶ **How to do it with The Orpheus System?**
  - Connect the Orpheus CAST to digital microscope
  - Live broadcast to remote pathologist
  - Bi-directional audio-visual collaboration



# Live Teleconferencing at Will

## Workflow in Sheba Medical Center:

*Broadcasting unit easily deployed at any room lowered the cost of setting up a multiple location live session*



- ▶ **What Can You Do?**
  - Live teleconferencing from anywhere
  - Transform any room with minimal effort and cost
- ▶ **Where?**
  - Any department or surgical suite
- ▶ **How to do it with The Orpheus System?**
  - Connect the Orpheus CAST to camera
  - Efficiently broadcast to multiple viewers at remote locations



# Patient Engagement in Diagnostic Labs



## Workflow in OSF:

*At the end of the pulmonary study, clinician opens the Orpheus client and shows the patient images and video*



## ▶ What Can You Do?

- Show patient and family the video and images immediately after the procedure
- Increase patient engagement and raise trust

## ▶ Where?

- Any department or surgical suite

## ▶ How to do it with The Orpheus System?

- Open the Orpheus application on any computer or mobile device
- Show the video and images and communicate



# Point of Care Ultrasound Live Collaboration



## Workflow:

*Connect any US modality to broadcast live to remote specialist; determine whether to record live session or not*



- ▶ **What Can You Do?**
  - Remote connect a specialist for live collaboration
  - Efficient, timely and accurate treatment
  - Minimal disruption to workflow
- ▶ **Where?**
  - Any department using image guidance (anesthesia, obstetrics, etc.)
  - Point of care ultrasound (vascular, emergency department)
- ▶ **How to do it with The Orpheus System?**
  - Connect the imaging modality with an Orpheus CAST unit
  - Secure remote physician controlled streaming from anywhere using the Orpheus application
  - No redundant storage of video or images





# Obstetrics and Gynecology



## Workflow in Bnay Zion:

*OB/GYN ultrasound machine connected to Orpheus CAST; every procedure is recorded and copy given to parents; keep for follow up*



- ▶ **What Can You Do?**
  - Record and document pregnancy ultrasound screening exams
  - Keep record for medico-legal purposes
- ▶ **Where?**
  - OB/GYN
- ▶ **How to do it with The Orpheus System?**
  - Record video and physician voice annotations during the exam
  - Edit and share video with the parents
  - Store and share with EMR and PACS/VNA





# Physician Structured Reporting



## Workflow:

*Embedding images into structured Endoscopy report; match images to body region diagrams; automatically share with EMR and VNA*

South Avenue Digestive Disease Center  
1110 South Avenue, Suite 203  
Staten Island, NY 10314  
Ph: 718.982.1315  
Fax: 718.477.9025

**SAMPLE COLONOSCOPY REPORT**

PATIENT NAME	PATIENT ID	DOB	AGE	SEX	EXAM DATE	ATTENDING PHY	REFERRAL
Joseph R Smith	JOSM000	2/6/1942	72	M	02-12-2014	William Christopher, M.D.	Colin James, M.D.

INDICATION: Patient with altered bowel habit with intermittent constipation with low abdominal pain. Colonoscopy to evaluate possible colitis and colorectal CA screening.

CONSENT: Informed consent was obtained from the patient after providing opportunity for questions.

PREPARATION: EKG pulse, blood pressure and oxygen saturation monitored. Bowel preparation was given by half-litoly. Patient has no bleeding tendency. Has not used ASA or anticoagulation drugs for last 3 days.

INSTRUMENT: Olympus CFHQ190L 2303317

ANESTHESIA: As Per Anesthesia

PROCEDURE: After placing the patient in the left lateral decubitus position, the colonoscope was gently inserted into the rectum and under direct visualization advanced to the cecum which was identified by transillumination in the right lower quadrant. Identification of the ileum, appendiceal orifice, cecal strap, cecum, teniae, mucosa and anatomy of the colon were carefully examined with the scope. The patient tolerated the procedure well and there were no complications. After completion of the examination, patient was transferred to the recovery room.

FINDINGS

- Rectum: Anoscopy performed showed moderate hemorrhoids. Mild rectal colitis noted. Biopsy obtained. Flat Polyp of size 0.4 cm. Polypectomy done using biopsy forceps.
- Sigmoid Colon: Severe Polyp of size 0.6 cm. Polypectomy done using biopsy forceps.
- Descending Colon: Normal mucosa
- Transverse Colon: Normal
- Ascending Colon: Normal
- Cecum: Normal
- Ileocecal Valve: Normal
- Blind: Not Seen

IMPRESSION: Hemorrhoids, moderate. Mild rectal colitis. Rectal Polyps (small).

PLAN: Walk for Bowel/Colon Screen

- ▶ **What Can You Do?**
  - Accurately document the procedure and tell your story
  - Include multi-media in report
  - Immediately share with EMR
- ▶ **Where?**
  - Endoscopy
  - Surgical suites
- ▶ **How to do it with The Orpheus System?**
  - Customized reporting templates per department
  - Embed images in report and associate to body region diagrams
  - Sign and immediately share with EMR and PACS/VNA



Thank You

[www.orpheus-medical.com](http://www.orpheus-medical.com)