

# A Quality and Safety Checklist for Intraoperative Consultation

## The Problem

Intraoperative consultation (IOC) plays a vital role in providing surgeons with immediate and essential information to guide surgical management. Timely and accurate diagnosis may be used to modify or even abort a surgical procedure. However, both timeliness and accuracy could be impacted if the processes are not optimized in a frozen section room. A recent adverse event about a patient given incorrect intraoperative diagnosis of cancer alerted us to thoroughly examine our workflow. We discovered three major vulnerabilities:

- 1) Duplicate administrative work for clinical personnel may delay IOC diagnosis procedure;
- 2) Lack of standardized slide labeling practice and hand-off communication could lead to potential patient harm;
- 3) Lack of centralized documentation impedes periodic review of the correlation between IOC diagnosis and permanent diagnosis.

## Goal

Based on the identified vulnerabilities, we had three goals for this project:

- 1) To optimize the workflow and minimize the delays;
- 2) To improve slide labeling and hand-off accuracy;
- 3) To build a reliable and trackable data source for future clinical QA review.

## The Team

- ❖ Yael K. Heher, MD, MPH – QA/QI Director, Pathology.
- ❖ Jeffrey D. Goldsmith, MD – Director, Surgical Pathology and Laboratory.
- ❖ Yigu Chen, MPH – Quality Improvement Specialist, Pathology.
- ❖ OR surgical team.

## The Interventions

- ❖ Reviewed current IOC workflow, identified and eliminated non-value-added procedures like filling out billing code sheets.
- ❖ Revised Standard Operation Procedure (SOP) for IOC slide labeling. Patient's last name, first initial, medical record number, and specimen designation by surgeon should be clearly labeled using chemically resistant pen prior to applying any tissue on the slides.
- ❖ In collaboration with OR Executive Committee to implement read-back policy for IOC diagnosis.
- ❖ Designed an IOC checklist to help promote correct labeling practice and effective communication between surgical and pathology teams. The checklist also served as a tool to centralize the documentation and data collection for IOC turnaround time and diagnosis discrepancy.

## Progress to Date

**Intraoperative Consultation (IOC) Checklist**  
**Pathology Resident and Attending Pathologist (Frozen Section Room)**

→ Time received: _____	→ Type of IOC: FS / TP / SM / Gross only
→ Standardized slide labeling: YES / NO e.g. FROG, K   1234567   Specimen designation by surgeon	
→ Billing code: _____	→ IOC resident initials: _____
→ Diagnosis: _____	
IOC Pathologist Signature: _____	
Case for FS Conf.: YES / NO	
→ Results communicated to: _____, M.D.	→ Read back obtained: YES / NO / Surgeon not available
by Attending / Resident / Both	→ Time results communicated: _____
→ 2 <sup>nd</sup> pathologist consulted? YES / NO	→ If YES, Dr. initials: _____
Attending Pathologist (Permanent Dx)	
→ FS discrepancy: YES / NO	→ Signout pathologist initials: _____

**Safety & Lean: correct labeling**

**Lean: remove duplicate paperwork**

**Safety: read-back policy**

**Quality: TAT tracking**

**Quality: discrepancy tracking**

## Lessons Learned

- ❖ A small process change requires close collaboration from multiple groups. This project involved the Pathology administrative team, quality team, residents, attendings, LIS team and also the surgical team.
- ❖ Multiple PDSA cycles performed on designing the checklist. Making the tool user-friendly and listening to the feedback from users are critical to spreading the change.

## Next Steps

- ❖ Monitor the effective use of IOC checklist and keep collecting feedback.
- ❖ Analyze the turnaround time and discrepancy data, float these two indicators onto department Quality Dashboard.