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# Standardized Reporting in Pancreatic Protocol CT: Implementation across 3 community hospitals

Jacob Miller MD, James Banks MD, Kevin Carr MD, and Nisha Mani MD | HCA

Introduction and Background

- Pancreatic adenocarcinoma is the fourth most common cause of cancer-related death in the United States. Early diagnosis of resectable disease provides the greatest chance for effective therapy.<sup>1</sup>
- The National Comprehensive Cancer Network (NCCN), Society of Abdominal Radiology, and the American Pancreatic Association have published guidelines for imaging practices and reporting practices that call for the use of standardized reporting in pancreatic protocol CT.<sup>1,2</sup>
- Utilization of standardized reporting has been shown to change treatment decisions in roughly ¼ of patients by providing complete and pertinent information regarding tumor resectability and disease extent.<sup>4</sup>
- Three community hospitals used three different pancreatic protocols for the evaluation of pancreatic masses.
- All hospitals were served by the same 23 radiologists and diagnostic radiology residency.
- No standardized reporting template existed before implementation of pancreatic protocol reporting template.
- To the best of the author’s knowledge, no studies have been performed which have examined practitioner satisfaction with standardized reporting templates for pancreatic protocol CT in the community care center.

Aim

“Our goal is to improve baseline practitioner satisfaction with imaging and reporting practices (5.1 and 5/10, respectively) and decrease baseline “time-to-biopsy” (5 days) at 12 months to 10/10, 10/10, and 3 days by protocol standardization and implementation of standardized reporting.”

Leaders: Jacob Miller, MD and Kevin Carr, MD

Faculty Mentor: Nisha Mani, MD

Project Coach: James Banks, MD

Radiology CT Coordinators: Gloria, Cameron, and Kristin

Methods

PLAN-DO-STUDY-ACT

Establish baseline reporting “comprehensiveness,” practitioner satisfaction scores, and time-to-biopsy.

Standardize CT pancreas protocol, provide reporting checklist.

Quarterly analysis of protocol adherence, report comprehensiveness, and “time-to-biopsy.”

At 6 months, provide technologist re-education and reinforce usage of standardized template, as necessary.

At 12 months, analyze protocol adherence, template usage, report comprehensiveness, “time-to-biopsy,” and practitioner satisfaction scores. Continue or abandon standardized reporting.

Results

Baseline characteristics

Overall comprehensiveness (n=36)		60%
	Morphologic Evaluation	84%
	Vascular evaluation	51%
	Extrapancreatic evaluation	74%
Practitioner satisfaction (n=6)	Imaging protocol	5.1/10
	Reporting practices	5/10
Time-to-biopsy (n=12)		5 days



Axial CT Pancreas protocol in portal venous phase with 4 centimeter pancreatic head mass (straight arrow) demonstrating superior mesenteric vein encasement and narrowing (white arrow). The abdominal aorta (blue star) and superior mesenteric artery (curved arrow) are uninvolved.

Conclusion

- Project is on-going as baseline satisfaction with imaging and reporting practices established opportunity for improvement.
- Uncommon dictation system and imaging archive, technologist and radiologist vigilance, and institutional barriers required unique solutions. Some inefficiencies were mitigated, but not eliminated. Turn-around time was likely increased.
- Even with reporting checklist, “comprehensive” reporting requires standardized imaging practices, strict protocol adherence, frequent educational reinforcement, and strong cooperation between radiologists, hospital administrators, technologists, and practitioners.
- Additional benefits of this project include improved report accessibility for future analysis of management decisions, hospital stay, surgical outcomes, and disease-free survival.

References

1. Al-Hawary MM et al. Pancreatic ductal adenocarcinoma radiology reporting template: consensus statement of the Society of Abdominal Radiology and the American Pancreatic Association. Radiology. 2014; 270(1):248-60.

2. NCCN Guidelines 3.2019. Pancreatic adenocarcinoma.

3. Pawlik TM et al. Evaluating the impact of a single-day multidisciplinary clinic on the management of pancreatic cancer. Ann Surg Oncol. 2008; 15(8):2078-80.

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and Medical Center

Quarterly report comprehensiveness

Quarter	Report comprehensiveness (%)
January-March 2017	20
April-June 2017	65
July-September 2017	60
October-December 2017	40
January-March 2018	85
April-June 2018	60
July-September 2018	38
October-December 2018	75
January-March 2019	75
April-June 2019	65
July 2019-current	80

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