

## Implementation of a Stereotactic Body Radiotherapy Program for Unresectable Pancreatic Cancer in an Integrated Community Academic Radiation Oncology Satellite Network

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Abstract

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## Abstract

**Objective:** With increasing interest in stereotactic body radiotherapy (SBRT) for unresectable pancreatic cancer, quality improvement (QI) initiatives to develop integrated clinical workflows are crucial to ensure quality assurance (QA) when introducing this high risk technique into radiation practices.

**Methods:** In 2017, we used the Plan, Do, Study, Act (PDSA) QI methodology to implement a new pancreas SBRT program in an integrated community radiation oncology satellite. A unified integrated information technology infrastructure was used to virtually integrate the planned workflow into the community satellite network (P - Plan/D - Do). This workflow included multiple prospective quality assurance (QA) measures including multidisciplinary evaluation, prospective radiation target delineation scrutiny, radiation plan evaluation, and real-time monitoring of patient outcomes. Institutional review board approval was obtained to retrospectively study and report outcomes of patients treated in this program (S - Study).

**Results:** There were 12 consecutive patients identified who were treated in this program from 2017-2020 with a median follow-up of 27 months. The median survival was 13 months, median local failure free survival was 12 months and median progression free survival was 6 months from SBRT. There were no acute or late Common Terminology Criteria for Adverse Effects (CTCAE) version 5 toxicities  $\geq$  Grade 3.

**Conclusion:** We report the successful implementation of a community pancreas SBRT program involving multiple prospective QA measures, providing the groundwork to safely expand community access to pancreas SBRT in our community satellite network (A - Act).