Assessing Patient Reported Outcomes in Radiation Oncology

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BACKGROUND

- The success of radiation therapy is judged by the balance achieved between tumor control and avoidance of side effects
- The field is moving rapidly toward assessing side effects and quality of life directly from patients via “patient-reported outcomes” (PROs)
- Technology can be used to automate the administration of surveys at specific time intervals without the need for in-person visits
- Electronic administration of QOL surveys has been associated with a 40% improvement in data collection rates for radiation oncology patients¹ (increase from 52% to 90% of surveys completed at 6 month time point, and from 36% to 82% at 1 year time point)


TECHNOLOGY

- VisionTree Optimal Care™ (VTOC) is a software-as-a-service (SaaS), cloud-based, modular, interoperable patient/provider portal system
- Extensive library of over 200 validated oncology and general-purpose survey instruments (e.g. EPIC, IIEF, EQ5-D, SF-36, FACT-G, VAS, MDASI, etc.)
- Configurable clinical protocol templates assign survey instruments and timing of administration based on diagnosis
- Electronic reminders and notifications sent to patients via e-mail and SMS text messaging
- Cancer patients are increasingly likely to be active online and to have broadband access at home

- Optimized for iPad and tablet PCs
- Web services API, HL7 interface capability for integration with existing clinical systems
- 256 bit SSL encryption, SAS-70 compliant data center, HIPAA and 21 CFR Part 11 compliant

PENN RADIATION ONCOLOGY PROJECT PLAN

- Plan to implement systematic collection of patient-reported quality of life surveys for all patients treated in the department
- Implementation Timeline:
  - Disease site teams will select the surveys and time intervals to be associated with each set of diagnoses
  - Proposed plans for integration include:
    - Transfer of ADT information from Aria to VTOC via web services
    - Transfer of completed survey documents from VTOC to Epic
    - Context aware hyperlink (pseudo “single sign on”) from Epic to VTOC
    - Incorporation of survey data into Penn Data Store
    - Workflows will emphasize MyPennMedicine as the primary patient portal for most clinical functions, with VTOC as an adjunct tool for RadOnc quality of life survey collection

Penn Radiation Oncology