

Purpose:

The goal is to develop a dynamic automated patient management program. This software will be able to track the status of the patient's treatment plan and remind the responsible parties of intermediate deadlines. Alerts are sent each morning to the radiation oncologist, residents, dosimetrists, and physicists about the current stage of the treatment planning.

Method:

The patient planning management software was written in Visual Basic 7.0 and incorporates Microsoft Excel's spreadsheet. The programs display is viewable over anywhere in the department. The program shows each patient's data in a separate row and color coded according each radiation oncologist. The patient's CT and start date are entered for each patient. The deadlines included are that for the approval of the PTV and normal tissue, plan approval, and completion. The program will change the color of the patient's data from yellow (warning) and red (alarm) based upon approaching deadlines.

Results:

This planning software continuously updates patient information. This program eliminates the time consuming process of paging, emailing, and tracking down responsible parties to communicate completion of various tasks. Since the inception of this software the mean time interval to complete a plan has decreased by 30%. The mean time required to get target volumes approved has dropped 25%. One significant benefit is the 50% increase in time between the completion date and start date. Without an increase the overall planning time, this has allowed more time for physics checks, quality assurance, and therapist review.

Conclusions:

In the face of increasing patient numbers the dynamic automated patient management software has enabled our department to complete our patient's plans in a more efficient manner. This increased efficiency allows all responsible staff adequate time to complete their responsibilities for each patient.