Purpose:

Plan report documentation contains numerous details about the treatment plan, but critical information for patient safety is often presented without special emphasis. This can make it difficult to detect errors from treatment planning and data transfer during the initial chart review. The objective of this work is to improve safety measures in radiation therapy practice by customizing the treatment plan report to emphasize safety-critical information.

Methods:

Commands within the template file from a commercial planning system (Eclipse, Varian Medical Systems) that automatically generates the treatment plan report were reviewed and modified. Safety-critical plan parameters were identified from published risks known to be inherent in the treatment planning process. Risks having medium to high potential impact on patient safety included incorrect patient identifiers, erroneous use of the treatment prescription, and incorrect transfer of beam parameters or consideration of accessories. Specific examples of critical information in the treatment plan report that can be overlooked during a chart review included prescribed dose per fraction and number of fractions, wedge and open field monitor units, presence of beam accessories, and table shifts for patient setup.

Results:

Critical information was streamlined and concentrated. Patient and plan identification, dose prescription details, and patient positioning couch shift instructions were placed on the first page. Plan information to verify the correct data transfer to the record and verify system was re-organized in an easy to review tabular format and placed in the second page of the customized printout. Placeholders were introduced to indicate both the presence and absence of beam modifiers. Font sizes and spacing were adjusted for clarity, and departmental standards and terminology were introduced to streamline data communication among staff members.

Conclusions:

Plan reporting documentation has been customized to concentrate and emphasize safety-critical information, which should allow for a more efficient, robust chart review process.