Over a period of three years, we monitored the variance from treatment set-up on three accelerators in our Department. Each machine on the average treats 20-25 patients per day. Therapists were asked to fill out a voluntary reporting form to document the variances, their understanding as to why the variance occurred and what recommendations they would institute so that the variance could be avoided in the future. The form also included an analysis of the impact of each variance on the patient and the corrective steps taken by the physician and physicist to compensate for the dosimetric and clinical implications of the variance. Major categories reported were related to blocks, wedges, collimator settings, monitor unit settings and beam energy. Most of the variance was with the Clinac 4 which did not have a 'record and verify' system, and most dosimetry corrections were related to the wedge/compensator used. These results and their implications will be presented.