To date, we have treated over 50 prostate patients using the NOMOS Peacock MIMiC system. Each patient treatment set up is verified using port films with the MIMiC mounted and all veins open. The set up error is determined using a specially developed fiducial system that allows registration to CT and treatment planning. Uncertainties in the system have been estimated and implemented for treatment planning margins around the prostate. Of the sample of our analysis, we show 17 patient set up errors and discuss problems associated with the set up and possible improvements (Table 1). We also demonstrate that good technique dramatically changes the outcome of the set up.