For prostate implants, conformal treatment is critical due to the pear -like shape of the prostate with internal (urethra) and adjacent (bladder and rectum) radiosensitive structures. Differential loading is a desirable feature because the bulky portions of the tumors typically lie at peripheral locations within the prostate. This is why the ultrasound guided transperineal HDR Brachytherapy seems to be the treatment of choice for final prostate cancer boosts. We present here our step by step protocol for these treatments, including specific QA tests (for the afterloader unit, treatment planning system and applicators), simulation procedure (conventional and CT based, methods to define and localize the target volume and organs at risk), treatment planning aspects for a 3D treatment planning system (optimization methods, isodose distribution visualization both on CT and simulator images, treatment plan selection), treatment plan verification (second checks, hand calculations), treatment delivery (dose fractionation schedule, changes from one fraction to another, treatment adjustments) and in vivo dosimetry (rectal dose measurements with diodes). Methods to decrease the time between the insertion of the needles and the treatment delivery, such as complete elimination of the conventional simulation process, better visualization and needle identification tools as well as treatment planning patterns and challenges will be discussed along with our results for over 50 prostate implants.