Purpose: To report an in-house cost-effective, easily made and set up, yet accurate technique for treating penis cancer at a community freestanding cancer.

Methods: Recently, a patient with penis cancer was under radiotherapy at our institution. The treated site was his penis only. The patient was simulated in supine position with his penis inserted in a custom supporting tool. This supporting tool is made of a regular candle that can be bought at any retail store. It measures about 10 cm in diameter and has a HU about -100. A hole slightly larger than the patient's penis was drilled in the middle with enough buildup wall left for a 6 MV beam used for the treatment plan. For the remaining space not occupied by the patient's penis, regular flour was filled in tightly, which has a HU about -200. The plan was done with an opposing lateral conformal field setup to get a uniform dose distribution across the treatment site. It makes essential no difference whether the heterogeneity is turned on or not in the dose calculation with Varian’s Eclipse TPS. Four MOSFET dosimeters were placed on the surface of the penis for in-vivo measurement for two consecutive fractions. The prescription was 180 cGy/fx. The mean dose for the skin (3 mm deep region from the surface contoured in Eclipse) was 182.9 cGy with a minimum of 179.3 cGy and a maximum of 185.8 cGy.

Results: The in-vivo measurement was 183.2 cGy +/- 1.4 cGy, including a port film with 2 MU. The measurement was in good agreement with the calculation.

Conclusions: In-vivo measurement proved the in-house developed supporting tool to be cost-effective, easily made, and easy to set up on a daily basis for accurately treating penis cancer.