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Introduction & Objectives: Since the opening of the Polish Center of Robotic Urology in Warsaw in September 2018, over the period of the 9 following months, a team consisting of an expert da Vinci surgeon and two urological trainees (previously unexperienced in robotic surgery) has conducted 256 robotic surgeries including robot assisted radical prostatectomies (RARP) and simple prostatectomies, using the da Vinci Surgical System. In our center the patient-side assistant is responsible for the initial part of each da Vinci surgery (patient positioning, trocar placement, patient cart docking) and at the end of the procedure - for undocking, specimen removal and wound closure. The aim of the study is to assess the evolution of surgical skills of the patient-side assistants by evaluating the time required to complete the assistant's tasks at the beginning and the end of each da Vinci surgery performed in our center.

Materials & Methods: Over the 9 month period, for each SMART (Salwa Modified Advanced Robotic Technique) Prostatectomy (described previously) we measured the time starting from patient positioning till the end of docking of the patient cart (T1) and the time since the da Vinci surgeon has left the surgical console till wound closure (T2). For each 20 consecutive surgeries performed in 2018 and 2019 mean T1 and T2 were calculated and the acquired data was further analyzed.

Results: Over the course of first 118 cases (performed in 2018) the mean T1 and T2 were reduced from 37 to 26 minutes and 35.6 to 27 minutes, respectively. Further 138 cases (performed in 2019) resulted in reduction of T1 and T2 to mean values of 21.67 and 19.5 minutes, respectively.

Conclusions: Having performed 256 consecutive da Vinci surgeries we observed constant progress in surgical skills of patient-side assistants resulting in reduction of the time required for the initial part of each procedure by approximately 15 minutes and for the final part - by approximately 16 minutes. Further progress evaluation of urological trainees is being conducted.