

MP33-03**INITIAL EXPERIENCE WITH A CONVERSATIONAL ARTIFICIAL INTELLIGENCE BASED VIRTUAL ASSISTANT TO IMPROVE MONITORING OF PROSTATE CANCER**

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INTRODUCTION AND OBJECTIVE: Conversational artificial intelligence (AI) is a type of AI that uses natural language processing and machine learning to enable human-like dialogue with machines. It has advanced significantly in recent years and powers a growing range of applications including virtual assistants. Among the possible benefits of applying this technology in the monitoring of PCa (prostate cancer) patients are: 24/7 availability, quick access to information, efficiency improvement and increased personalized patient experience. We present initial experience with LOLA, a clinical virtual assistant developed by Tucuvi Health Manager that allows remote monitoring of patients.

METHODS: 131 PCa patients were included from 01-10/2024 for monitoring. Structured follow-up was conducted by LOLA through quarterly phone calls, collecting detailed information about patient health status (general well-being, fractures and falls, urinary symptoms, fever and pain) in addition to data on PSA value and next doctor's appointment. The algorithms analyzed the conversation and sent structured information to clinicians, including alerts in cases of clinical changes (hematuria, unexpected pain, fractures, abnormal PSA value) or unknown date of next appointment (UD). Data were recorded on Tucuvi Health Manager platform.

RESULTS: Mean age of patients was 73 (range 45-89). PCa treatment was prostatectomy (60%), radiotherapy (38%) and androgen deprivation therapy (2%). 131 patients were called and 375 follow-ups were made with 714 call attempts. In total, 305 calls were answered and 285 phone-calls completed. The estimated number of hours released was 97,95. 81% of follow-ups resulted in a successful contact with the patient and the adherence (percentage of answered calls that resulted in a completed call) was 93%. Only one patient voluntarily withdrew from follow-up. Total number of alerts was 89 and most common were: unexpected pain (30), abnormal PSA value (18), UD (11) and hematuria (6). 18 actions were taken in response: 12 phone-calls from the urologist, 2 in-person visits, 2 imaging studies and 1 laboratory test. The main alerts that led to action were hematuria and unexpected pain.

CONCLUSIONS: Implementing remote monitoring with AI implies a significant step in the care of PCa patients. The use of this technology enables early identification of any worsening of the underlying disease and makes easier for the clinical team to focus on those who need the most assistance. The incorporation of this virtual assistant in our institution has demonstrated being useful to increase the continuity and quality of care provided with good patient adherence.

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MP33-04**THE INTERACTION OF STRUCTURED DATA USING OPEN EHR AND LARGE LANGUAGE MODELS FOR CLINICAL DECISION SUPPORT IN PROSTATE CANCER**

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INTRODUCTION AND OBJECTIVE: Multidisciplinary teams (MDTs) are essential for cancer care but are resource-intensive. Decision-making processes within MDTs, while critical, contribute to increased healthcare costs due to the need for specialist time and coordination. The recent emergence of large language models (LLMs) offers the potential to improve the efficiency and accuracy of clinical decision-making processes, potentially reducing costs associated with traditional MDT models.

METHODS: We conducted a retrospective study of 171 consecutively treated patients with newly diagnosed prostate cancer. Relevant structured clinical data and the European Association of Urology (EAU) pocket guidelines were provided to two LLMs (chatGPT-4, Claude-3-Opus). LLM treatment recommendations were compared to actual treatment recommendations of the MDT meeting (MDM).

RESULTS: Both LLMs demonstrated an overall adherence of 93% with the MDT treatment recommendations. Discrepancies between LLM and MDT recommendations were observed in 15 cases (9%), primarily due to lack of clinical information that could be provided to the LLMs. In 5 cases (3%), the LLM recommendations were not in line with EAU guidelines despite having access to all relevant information.

CONCLUSIONS: Our findings provide evidence that LLMs, in conjunction with structured data, can provide accurate treatment recommendations for newly diagnosed prostate cancer patients, with significant potential to reduce healthcare costs. LLMs have the potential to streamline workflows, promote cost-effective decision-making and improve resource allocation, particularly in settings where access to specialized expertise may be limited.

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MP33-05**PROSTATE CANCER SURVIVORSHIP EXPERIENCES AND AREAS FOR IMPROVEMENT**

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INTRODUCTION AND OBJECTIVE: Despite improvements in prostate cancer (CaP) management, patients may struggle to navigate treatment complexity and have unmet survivorship needs. We aim to understand areas of improvement in the survivorship experience.

METHODS: We prospectively identified focus group patients from 1/2023 – 3/2023 who were <75 years old and underwent definitive therapy or active surveillance >12 months from follow up in a multi-disciplinary clinic. All patients were given treatment satisfaction, prostate cancer beliefs, decisional regret, and EPIC quality of life surveys. Quantitative analysis of clinical, pathologic, and survey data was performed. Each patient underwent individual semi-structured interviews focused on their CaP management and survivorship experiences. The study was closed once a saturation of themes was reached on qualitative analysis.

RESULTS: Among 50 patients, a majority of patients were white (78%), employed, and average age was 67 (SD 7) years. Mean time from diagnosis was 8 (SD 5) years with most patients having intermediate risk (44%) and low risk (40%) CaP. Radical prostatectomy (56%), radiation therapy (31%), or active surveillance (13%) was initial management. 18 (35%) patients experienced biochemical recurrence and 1 (2%) distant metastatic disease. Most patients felt they made the right decision (91%), did not regret their decision (81%), and were satisfied with treatment (79%). However, many reported bothersome urinary dysfunction (53%) and sexual dysfunction (68%). Qualitative analyses from individual interviews are summarized in the table.

CONCLUSIONS: Our study highlights areas for improvement in the prostate cancer patient experience, specifically to improve education/counseling on treatment options, sexual function, and coping strategies. Additionally, peer mentorship was desired and valued among patients to augment standard counseling. Further implementation and outcome measures are needed in a larger patient population.