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SYMPTOMS SUGGESTIVE OF URINARY TRACT INFECTIONS AMONG INTERMITTENT URINARY CATHETER USERS: A RETROSPECTIVE, REAL-WORLD ANALYSIS OF A LONGITUDINAL PATIENT DATABASE.

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Hypothesis / aims of study

Systematic reviews have highlighted the lack of evidence for choosing one type of intermittent urinary catheter (IUC) over another with regard to the incidence of bacteriologically proven or clinically suspected urinary tract infection (UTIs). Objective: To determine the FREQUENCY of symptoms suggestive of UTIs (ssUTIs) for prelubricated vs. hydrophilic IUCs.

Study design, materials and methods

An observational study of a longitudinal patient database compiled by a representative panel of 1,950 general practitioners in the UK. Outcome Measurements and Statistical Analysis: The primary outcome measure was the occurrence of an ssUTI during the 12 months following an initial IUC prescription. Symptoms suggestive of UTI were assessed as the prescription of a non-specific antibiotic with a UTI-related diagnosis, or a UTI-specific antibiotic alone. Comparable prelubricated ("PRELUBE") and hydrophilic ("HYDRO") catheter groups were obtained with 1:1 propensity score matching (PSM).

Results

5296 patients were included (PRELUBE: n=458; HYDRO: n=4838). Each PRELUBE patient was successfully matched with a HYDRO patient. After PSM, the intergroup difference in the proportion of patients with at least one ssUTI at baseline was not significant. Over the exposure period, the proportion of patients with at least one ssUTI was similar in the PRELUBE and HYDRO groups (36.9% and 41.5%, respectively; $p=0.155$). For patients having used the same catheter type throughout the exposure period, the proportion with one or more ssUTIs was significantly lower in the PRELUBE group (44.6%, vs. 55.0% in the HYDRO group; $p=0.015$). There were significantly fewer ssUTIs per patient in the PRELUBE group (0.9) than in the HYDRO group (1.3; $p=0.006$).

Interpretation of results

We performed a retrospective, real-life study of an LPD containing data on IUC use and ssUTIs in patients consulting GPs. In the absence of direct clinical data on each patient and each incident event, our definition of an ssUTI was pragmatically based on prescription data and diagnostic codes. In order to study users of prelubricated vs. hydrophilic IUCs, we used PSM to form two comparable PRELUBE and HYDRO groups. At baseline, the matched study population comprised middle-aged and older adults (mean age: 58), with female predominance (~60%) and a third of the patients classified as overweight or obese. We also observed that during the exposure period, the mean daily consumption was around three catheters (2.8-3.1) in both the PRELUBE and HYDRO groups; this is lower than recommended in the official guidelines. Firstly, in the UK, the number of catheters prescribed is not restricted. Secondly, prescribing practice will vary from one part of the country to another but most local payers ("trusts") follow national guidelines (e.g. those issued by the Royal College of Nursing: <https://www.rcn.org.uk/professional-development/publications/PUB-007313>). Thirdly, some patients are still able to void their bladder through miction (at least to a certain extent) and so may not use an IUC for some of the day. Hence, the low mean daily consumption of IUTs observed here is unlikely to reflect the limitation of prescriptions by GPs.

Concluding message

There was no significant difference between the HYDRO and PRELUBE groups in the occurrence of ssUTIs. In some patient subsets, the incidence and number of ssUTIs were even significantly lower in the PRELUBE group than in the HYDRO group.

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Disclosures:

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