



## BENIGN PROSTATIC HYPERPLASIA (BPH) AND INTERMITTENT CATHETERIZATION

The general evidence level on successful use of intermittent catheterization is extensive and includes several types of diagnoses whereof BPH is described as one common reason for therapy. Specific studies in BPH with regard to intermittent catheterization in general, and comparisons between intermittent and indwelling catheterization in particular, are few but the results are considered to be in line with the general finding, i.e. that intermittent catheterization is a safe, and effective treatment option for both short and long-term bladder management and that it is the first and preferred choice over urethral/suprapubic indwelling catheters.<sup>1-7</sup>

BPH is a common cause of male lower urinary tract symptoms (LUTS) including storage, voiding and post micturition symptoms.<sup>8-10</sup> It has been reported that the incidence rate of LUTS/BPH increases with age with an overall prevalence of 10.3% and with a maximum at the age of 80 years old of 24%.<sup>10,11</sup> Other proposes that 90% of men aged 50 to 80 years suffer from potentially troublesome LUTS<sup>8</sup> and that 3-4 million men in the UK alone and 24 million men in Europe are affected by LUTS.<sup>9,12</sup> LUTS and BPH have impact on costs, quality of life and health status.<sup>11</sup> For example, approximately £180 million is spent on BPH treatment each year in the UK and the estimated direct cost for BPH in the US is approximately \$1.1 billion.<sup>11</sup> BPH is reported as the fourth most common condition/diagnosis among older men and LUTS affects quality of life, the more severe the symptoms the greater the impact on health status.<sup>11,13</sup>

Surgery is the most common and important treatment of BPH,<sup>14,15</sup> relevant for approximately 25%-61% of the patients.<sup>15,16</sup> LUTS could however, be relieved with intermittent catheterization. Intermittent catheterization is considered to manage retention while waiting for surgery, to promote recovery of the bladder after surgery<sup>14</sup> and to treat the cause of LUTS if other than bladder outlet obstruction.<sup>15</sup> Nishizawa et al. 2004 describes intermittent catheterization as an easy way to manage prostate swelling after minimal invasive surgery for BPH.<sup>17</sup> Radomski et al. 1995 describe the need of

intermittent catheterization for 38% of BPH patients immediately after prostatectomy, whereof 10% had a continued need also after 3 months follow-up.<sup>18</sup> Intermittent catheterization among patients with LUTS/BPH varies depending on setting, country and population studied. Examples from recent literature suggest figures between 18-67%.<sup>19-21</sup>

Comparisons between intermittent and indwelling catheterization within the BPH cohort are scarce and related to pre- and post-operative observations. For example, Ghalayini et al. 2005 evaluated two treatment groups scheduled for transurethral resection of the prostate (TURP) whereof one group had surgery delayed and were taught intermittent catheterization and as a result showed recovery of bladder function.<sup>22</sup> Nishizawa et al. 2004 propose that intermittent catheterization, as compared to primarily indwelling catheter use, could minimize the catheterization time from approximately 12 to 3 days when used to manage post-operative urinary retention due to prostate swelling after minimal invasive surgery.<sup>17,23</sup> Furuhashi et al. 1988 observed presence of pre- and post-operative bacteriuria in patients undergoing TURP and concluded already in 1988 that intermittent catheterization should be chosen in favor of an indwelling catheter in BPH patients with urinary retention or residual urine<sup>24</sup> and that indwelling catheter removal does not in itself resolve bacteriuria.<sup>24,25</sup>

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