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BRIEF COMMUNICATION

Emergency Management of Priapism in the United Kingdom: A Survey of Current Practice

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ABSTRACT

Background: Despite its importance, current practice in the emergency management of priapism in the United Kingdom is unknown.

Aim: To evaluate current practice in the emergency management of priapism in the United Kingdom.

Methods: All "full," "associate urological specialist," and "trainee" members of the British Association of Urological Surgeons (BAUS; leading membership-based organization for practitioners of urologic surgery in the United Kingdom) were invited to participate in an online survey. Questions related to the emergency management of priapism, access to tertiary andrology services, and use of guidelines.

Outcomes: Key outcome measures included frequency of encountered cases, access to specialist andrology support, confidence in key management steps, and use of current guidelines.

Results: 213 of 1,304 (16.3%) eligible members completed the survey. Most reported managing 1 case annually (median = 1, range = 0−>10). Only 7.0% transferred patients to a tertiary center and 87.8% believed they could access specialist andrology advice if required. Respondents were less confident in performing intracavernosal phenylephrine instillation (88.7%) compared with corporal aspiration (98.1%), with confidence lowest among trainee members. Only 68.5% reported performing the distal shunt procedure. Of the 212 respondents that chose to answer questions relating to guidelines, only 155 (73.1%) were aware of their existence, with those published by the European Association of Urology being most popular (53.8%). 205 (96.2%) respondents expressed an interest in the development of a UK-specific guideline, with 162 of 212 (76.4%) stating they would use this in practice.

Clinical Implications: Urologists in the United Kingdom support the development of UK-specific guidance on the emergency management of priapism for use within the context of the National Health Service.

Strengths and Limitations: This is the first study to assess current practice in the emergency management of priapism in the United Kingdom. Its strength is that most UK urologists were invited to participate through collaboration with the BAUS. Although the response rate of 16.3% is acceptable for a national survey of this nature, responses were self-reported, rendering them susceptible to bias.

Conclusion: This study demonstrates that some UK urologists lack confidence in key steps in the emergency management of priapism and identifies a strong level of support for the development of up-to-date UK-specific guidance. **Bullock N, Steggall M, Brown G. Emergency Management of Priapism in the United Kingdom: A Survey of Current Practice. J Sex Med 2018;XX:XXX−XXX.**

Key Words: Priapism; Emergency Management; Survey; United Kingdom; Guidelines

INTRODUCTION

Priapism is a rare urologic emergency characterized by an abnormal and often painful erection that persists beyond, or is unrelated to, sexual stimulation, for which prompt recognition and management is fundamental to preventing long-term complications. Most cases (>95%) are classified as ischemic (low flow), characterized by a persistent painful erection with little or no cavernous arterial inflow.[1] If left untreated, progressive changes to the corporal metabolic environment lead to progressive hypoxia, hypercapnia, and acidosis that result in irreversible

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fibrosis and permanent erectile dysfunction.[2] Non-ischemic (high flow) and stuttering (intermittent or recurrent) priapism are less common and can be managed on a non-emergency basis once the diagnosis has been established.

Given its low incidence, literature concerning the emergency management of priapism consists mostly of case reports and small series rather than high-quality randomized controlled trials. As such, the European Association of Urology (EAU) and American Urological Association (AUA) have produced guidelines based on established clinical practice and existing published literature.[2,3] There are currently no UK-specific guidelines for use within the context of the National Health Service (NHS), and the state of practice within the United Kingdom remains unknown. Therefore, this study sought to address this deficit by evaluating current practice in the emergency management of priapism, with particular focus on the use of guidelines.

METHODS

All "full," "associate urologic specialist," and "trainee" members of the British Association of Urological Surgeons (BAUS; leading membership-based organization for practitioners of urologic surgery in the United Kingdom) were invited to participate in an online survey consisting of 11 questions relating to the frequency of cases encountered, emergency management steps (including use and confidence in intracavernosal phenylephrine instillation, corporal aspiration, and distal shunt), access to tertiary andrology services, and use of guidelines (Supplementary Material). All questions were peer reviewed and approved by the committee of the BAUS Section of Andrology and Genito-urethral Surgery before dissemination to ensure validity and reliability. Invitations to participate were distributed by the BAUS administrative team by email to all eligible members on January 18, 2017. Data were captured using the online survey application, Survey Monkey (SurveyMonkey Inc, San Mateo, CA, USA). Basic descriptive analyses were performed using SPSS 16.0 (SPSS Inc, Chicago, IL, USA). No specific statistical tests were used to compare subgroups.

RESULTS

Subjects

698 of 1,304 (53.5%) invited members opened the invitation email and 213 (16.3%) went on to compete the survey. Of these, 160 (75.1%) were "full" members (ie, consultant urological surgeons on the UK Specialist Register in urology that have completed the Fellowship of the Royal College of Surgeons examination or equivalent, with $\geq$7 years of experience), 45 (21.1%) were "trainee" members (ie, specialty trainees approved by the Specialty Advisory Committee in urology, typically with 1−7 years of experience), 7 (3.3%) were "associate urological specialist" members (ie, those in a substantive staff grade, associate specialist or specialty doctor posts, all of whom have a variable degree of experience), and 1 chose not to disclose their membership category.

Clinical Practice

Most respondents (207; 97.2%) were required to manage emergency cases of priapism during on-call commitments. Most reported managing fewer than 10 cases per year, with most encountering only 1 case annually (median = 1, range = 0−>10). 13.1% (n = 28) reported encountering 0 case per year, whereas 6.1% (n = 13) reported managing more than 10. 63.4% of respondents reported undertaking initial emergency management within a local hospital without a tertiary andrology service. Of the remainder, 29.6% reported undertaking management within a center with an associated tertiary andrology service and 7.0% reported transferring the patient to a tertiary center for emergency care. In addition, 87.8% of respondents believed they could access advice from the regional andrology center if required.

Respondents reported feeling less confident in performing intracavernosal phenylephrine instillation (88.7%) compared with corporal aspiration (98.1%), with 68.5% performing a distal shunt procedure, as presented in Table 1. When stratified according to membership category, confidence appeared to be lowest among trainees.

Guideline Use

155 of 212 respondents (73.1%) reported an awareness of guidelines. Figure 1 presents the spectrum of guideline use among the sample population (respondents could select more than 1 guideline). The most popular were those published by the EAU (used by 53.8%), followed by reliance on existing clinical experience alone (used by 35.8%). Other reported guidance included the British National Formulary and BAUS Urological Emergency Mobile Phone Application. 205 respondents (96.2%) expressed an interest in the development of a UK-based

Table 1. Respondents' use and confidence in key management steps

	Membership category			
Management step	Full (n = 160)	Associate urological specialist (n = 7)	Trainee (n = 45)	All (N = 213)
Corporal aspiration	159 (99.4%)	7 (100%)	42 (93.3%)	209 (98.1%)
Phenylephrine instillation	146 (91.3%)	6 (85.7%)	36 (80.0%)	189 (88.7%)
Distal shunt	116 (72.5%)	5 (71.4%)	24 (53.3%)	146 (68.5%)