Statement on Clinical Assumptions of ‘Retrospective Review of Surgery for Urogynaecological Prolapse and Stress Urinary Incontinence using Tape or Mesh Hospital Episode Statistics (HES), Experimental Statistics, April 2008 - March 2017’

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Purpose

This review aims to retrospectively analyse Hospital Episode Statistics (HES) data pertaining to urogynaecological surgery for the treatment of pelvic organ prolapse (POP) and stress urinary incontinence (SUI) using vaginal mesh or tape, in comparison with non-mesh/tape procedures for the same indications.

Data was analysed between 2008 and 2017 to determine the frequency of such surgery, the rates of removal of mesh or tape, and the rates of attendance at outpatient clinics deemed to have potential relevance to complications of these types of urogynaecological surgery. The first outpatient attendances with Gynaecology or Urology specialties within 3 months of an index procedure have been excluded, as this was assumed to be part of routine post-operative care.

This data does not reveal the clinical indication for any specific outpatient visit, only the number of attendances. Each individual outpatient appointment may or may not have been related to issues resulting from the SUI or POP procedure. The review seeks to reveal any associations that may merit further investigation rather than to establish causality.

The review is specific to urogynaecological surgery for SUI and prolapse, and does not include the use of mesh in other areas, such as in rectopexy for rectal prolapse or inguinal hernia repair. These patients would only appear in the data if they had also undergone urogynaecological surgery within the inclusion groups.

The analysis is restricted to the OPCS operating procedure coding system and is unable to account for different mesh or tape product characteristics or materials, manufacturers, or variations of surgical technique.

Dataset and Coding

The HES dataset is not collected for the purpose of patient-level data analysis. The identification of data points from individual patients is achieved secondarily through use of a ‘patient key’ assigned during processing, a method considered less robust than those used for official statistics, and as such generates experimental statistics.

OPCS operating procedure codes are the method through which surgical activity is recorded in HES. Relevant codes were identified and classified as mesh procedures for prolapse, non-mesh procedures for prolapse, tape procedures for SUI and non-tape procedures for SUI through guidance from the NHS Digital Clinical Classification Service, expert urogynaecological consultation, and reference to previous published academic work.

Following this process, a number of potentially relevant non-mesh and non-tape procedures remained outside the Clinical Classification Service list. For additional comparison, these were analysed separately by the same methodology, and will be provided by NHS Digital as supplementary data.

During the study period, the directory of OPCS codes was updated through multiple versions with the introduction of new relevant codes, such as specific codes for the removal of urogynaecological mesh and tape. Prior to the existence of these specific codes, clinical coders used combinations of available codes to describe that activity. These have been applied for the relevant time periods to capture removal activity. In these cases, it is assumed that the combination of a urogynaecological procedure with the code for the removal of prosthetic material from an organ not otherwise classified (Y264) in the same hospital episode refers to the removal of tape or mesh.
Patients may be assigned multiple OPCS codes within and between episodes. This analysis distinguishes when multiple codes refer to the same patient within the same hospital episode. A patient assigned different procedure codes within the same hospital episode will appear only once, and is assigned their grouping according to the following hierarchy: mesh procedure for prolapse > tape procedure for SUI > non-mesh procedure for prolapse > non-tape procedure for SUI. However, the analysis may not identify when a single patient has multiple eligible index procedure codes between different hospital episodes. As such, a patient assigned different procedure codes in different episodes may appear as multiple different data points in the analysis.

HES data refers to NHS-funded procedures and private procedures carried out in NHS facilities, in England. This analysis includes only data from hospital episodes ending within the inclusion period, 2008-2017. The review does not incorporate patients having mesh or tape procedures outside the UK, privately-funded procedures in non-NHS facilities, or procedures performed in the reporting years prior to the inclusion period. These scenarios, along with potential coding omissions or errors inherent in the source dataset, may account for situations in which a patient has been coded for a mesh/tape removal procedure without having appeared in a mesh/tape insertion procedure group during the study period.

The OPCS code describing the suprapubic sling procedure was classified as a non-tape procedure for SUI, as it is used to describe rectus sheath sling procedures using autologous tissue rather than synthetic mesh or tape.