

Heterogeneity in reporting on urinary outcome and cure after surgical interventions for stress urinary incontinence in adult neuro-urological patients: a systematic review.

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Introduction

- An impaired neurological control of the external urethral sphincter may be the cause of stress urinary incontinence (SUI) → this bothersome condition affects many neuro-urological (NU) patients, typically those with a myelomeningocele or a conus-cauda equina lesion.
- Treatment of SUI in NU patients often requires a specific approach (due to the combination with other urological dysfunction, altered sensation and impaired mobility)

Aim of the study: to describe all outcome parameters and definitions of cure used to report on outcome of surgical interventions for SUI in NU patients.

Methods

Performed and reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement.

Search:

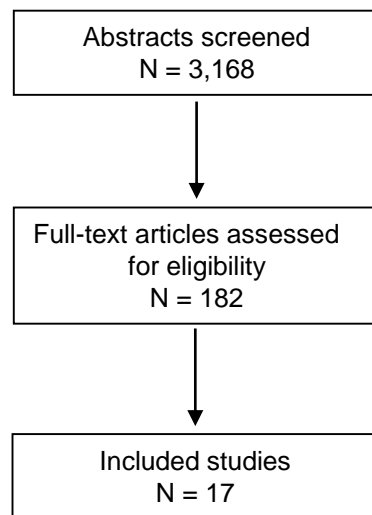
- Medline, Embase, Cochrane controlled trials databases and clinicaltrials.gov
- publications until February 2017 (search update).

Inclusion of: all publications of original studies on surgical interventions for SUI in adult NU patients that used a predefined urinary outcome parameter or a definition of success or cure.

Outcome:

- All used outcome parameters and definitions of cure were summarized and compared.
- Subjective = information from questionnaires and patient interviews
- Objective = derived from voiding diaries, pad tests, cough stress-tests or urodynamic investigations.

Results - search



Results - outcome

Used outcome parameters:	Number of studies:
Patient-reported pad use	11
Patient-reported urinary leakage status	7
Patient satisfaction	2
Leakage during VCMG	2
Bladder compliance	2
Bladder capacity	2
UDI-6	1
IIQ-7	1
Visual Analogue Scale for continence	1
ICIQ male short form	1
Health related quality of life questionnaire	1
Valsalva leak point pressure	1
Maximum detrusor pressure	1
Postvoid residual volume	1
Cough stress-test (leakage at cough/Valsalva at 250ml)	1
Urinary incontinence episodes (number/day – bladder diary reported)	1

Used definitions of cure/success/continence:
0 or 1 pads/day
No pads or continence aids used
No leakage per urethra, 0 pads per day.
If patient reported complete correction of SUI + no pads usage
Patient-reported 'fully continent'
Score of 10 on VAS (indicating no incontinence) or using no pads
Dryness at least 4 hours between 2 catheterizations/micturitions
Negative cough stress test + no leakage during physical examination
Subjective cure (no pads or continence aids) + objective cure (continence confirmed during urodynamic investigation)

In summary

In the 17 included studies:

- 16 different outcome parameters were used;
- 9 different definitions of cure were used.

Conclusions

- We found a considerable heterogeneity in outcome parameters and definitions of cure used to report on outcome of surgical interventions for SUI in NU patients.
- The results of this systematic review may begin the dialogue to a future consensus on this topic.
- Standardization of outcome parameters and definitions of cure would enable researchers and clinicians to compare consistently outcomes of different studies and therapies.