

# Intra-Urostomy Gentamicin Instillation for prevention of Recurrent Urinary Tract Infections: Case report

## Background

56-year-old female with recurrent pyelonephritis UTIs on a background of cystectomy with ileal conduit formation.

Preceding 12 months – patient received 13 courses of antibiotics and required 3 hospital admissions for UTIs.

Urine cultures: AmpC beta-lactamase E coli, Klebsiella, or mixed growth.

## Method

### Procedure:

160mg dose of gentamicin diluted in 50ml of 0.9% sodium chloride and instilled into the ileal conduit using a Wellspect LoFric catheter.

### Protocol:

A total 25-week regimen was implemented.

- 28 daily instillations over a four-week induction phase
- Alternate day instillations for nine-weeks
- Twice weekly instillations for twelve-weeks

Baseline bloods and urine cultures were obtained.

Twice weekly tests during induction phase.

## Results

Successful completion of induction and alternate day instillations.

Patient is currently completing twice weekly instillations.

To date:

- No further UTI episodes
- No oral or intravenous antibiotic requirement
- Pre-treatment chronic low-level flank pain had resolved
- Patient reported no adverse side-effects

No overt changes in renal function, liver function, or inflammatory markers compared to baseline.

Serum gentamicin levels remained within baseline parameters throughout the induction phase.

After three weeks, urine cultures demonstrated no bacterial growth for the first time.

## Conclusions

Intra-urostomy gentamicin instillations is a promising novel approach in prevention of recurrent UTIs.

Symptom resolution without additional antibiotics were achieved with no adverse side-effects.

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