Study, country	
Di Lorenzo, 2009	
Italy Control of the	
Study type, study period  Randomised controlled trial.	
Randomised controlled trial.	
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June 2006 to May 2008.

# Number of patients

80

#### **Patient characteristics**

Inclusion criteria: patients with high risk NMIBC failing BCG, where radical cystectomy was indicated but refused or inappropriate. Baseline characteristics:

	GEM (N = 40)	BCG (N = 40)
Male	27	22
Mean age, yrs	69.3	71.4
Stage Ta	10	8
Stage T1	30	32
Low Grade	11	13
High grade	29	27
Single tumour	10	8
Multiple tumours	30	32
Tumour < 3 cm	15	17
Tumour > 3 cm	25	23

# Intervention

Intravesical gemcitabine (2,000 mg/50 ml) twice weekly for 6 weeks then once weekly for 3 weeks at 3, 6 and 12 months.

#### Comparison

Intravesical BCG (81 mg/50 ml) once weekly for 6 weeks then once weekly for 3 weeks at 3, 6 and 12 months.

# Length of follow-up

Median follow up: 15 months

#### Outcome measures and effect size

Recurrence rate at 1 year follow up: 21/40 (55%) in GEM group vs 35/40 (87.5%) in BCG group, p = 0.002

Time to first recurrence, months: 3.9 months (95% CI 3.0-7.0) in GEM group vs 3.1 months (95% CI 2.2-6.0) in BCG group

Rate of radical cystectomy due to disease progression in patients with recurrent disease: 7/21 (33%) in GEM group vs 13/35 (37.5%) in BCG group, p = 0.12

Incidence of grade 2 adverse events: 12/40 (30%) in GEM group vs 13/40 (32.5%) in BCG group, p = 0.12

Incidence of grade 3 adverse events: 3/40 (7.5%) in GEM group vs 3/40 (7.5%) in BCG group, p = 0.25

# Source of funding

Not reported.

#### Risks of bias

Selection bias: low risk Performance bias: low risk. Attrition bias: low risk Detection bias: low risk

Additional comments