†*Bacillus Calmette–Guérin*

‡*Mitomycin*

## Figure S1: Flow chart of the method conducted during the study

Retrospective chart review of patients undergoing TURBT\* at SVHM\*\* between 1995-2015 (n=366)

Patients without recurrence (n=113)

Patients with recurrence (n=142)

Total number of patients after exclusion criteria (n=255)

**Exclusion criteria:** (n=111)

* Diagnostic TURBT† NOT performed at SVHM‡.
* Patients with a diagnosis other than pTa or pT1 disease.

†*TURBT = Transurethral resection of bladder tumour*

‡*SVHM = St. Vincent’s Hospital Melbourne*

Flow chart detailing the method of data collection, exclusion criteria and stratification of patients into “recurrence” or “without recurrence” groups.

#

## Figure S2: EAU†, comparison of 2004 WHO and 1973 WHO grading systems



†*EAU = European Association of Urology*

*PUNLMP = papillary urothelial neoplasm of low malignant potential*

Conversion from the 2004 WHO to the 1973 WHO grading systems. PUNLMP (WHO 2004) will be reassigned to Grade 1 (WHO 1973). Low grade (WHO 2004) will be reassigned to Grade 1 or Grade 2 (WHP 1973). High grade (WHO 2004) will mostly be converted to Grade 3 (WHO 1973).

MacLennan GT, Kirkali Z, Cheng L. Histologic grading of noninvasive papillary urothelial neoplasms. European Urology 2007; 51(4):889-97.’

##  Table S1: EORTC risk table for recurrence

|  |  |
| --- | --- |
| Clinico-pathologic factor | Score |
|  |  |
| Number of tumours |  |
| Single | 0 |
| 2 | 3 |
| ≥ 8 | 6 |
| Tumour Size |  |
| < 3cm | 0 |
| ≥ 3cm | 3 |
| Prior recurrence rate |  |
| Primary | 0 |
| ≤ 1 recurrence/year | 2 |
| > 1 recurrence/year | 4 |
| T category |  |
| Ta | 0 |
| T1 | 1 |
| CIS\* |  |
| No | 0 |
| Yes | 1 |
| Grade  |  |
| G1 | 0 |
| G2 | 1 |
| G3 | 2 |
|  |  |
| Total Score† | 0-17 |

*\*Carcinoma in situ*

†*Patients were risk stratified into: low risk (score 0), intermediate risk (score 1-4), high risk (score 5-9), and very high risk (score 10-17).*

Sylvester R, van der Meijden A, Oosterlinck W, Witjes J, Bouffioux C, Denis L et al. Predicting Recurrence and Progression in Individual Patients with Stage Ta T1 Bladder Cancer Using EORTC Risk Tables: A Combined Analysis of 2596 Patients from Seven EORTC Trials. European Urology. 2006;49(3):466-477.

##  Table S2: Exact (binomial method) comparing observed proportion vs proportion expected based on EORTC 3 year recurrence group

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Recurrence within 3 years** |  |  |  |  |
| **EORTC 3 year Recurrence groups** | **No** | **Yes** | **Total** | **EORTC 3 year predicted percentage recurrence**  | **Actual percentage recurrence [95% CI]** | **p-value(\*)** |
| Score 0 | 7 | 3 | 10 | 25 | 30 [7-65] | 0.72 |
| Score 1-4 | 15 | 24 | 39 | 40 | 62 [45-77] | 0.008 |
| Score 5-9 | 1 | 2 | 3 | 56 | 66 [9-100] | 1.00 |
| Score 10-17 | 0 | 0 | 0 | 75 | 0 | Cannot Estimate |
| **Grand Total***\*Exact binomial method* | **23** | **29** | **52** |  |  |  |

## Table S3: Exact (binomial method) comparing observed proportion vs proportion expected based on EORTC 5 year recurrence group

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Recurrence within 5 years** |  |  |  |  |
| **EORTC 5 year Recurrence groups** | **No** | **Yes** | **Total** | **EORTC 5 year predicted percentage recurrence**  | **Actual percentage recurrence [95% CI]** | **p-value(\*)** |
| Score 0 | 1 | 4 | 5 | 31 | 80 [28-100] | 0.03 |
| Score 1-4 | 22 | 8 | 30 | 46 | 27 [49-74] | 0.04 |
| Score 5-9 | 3 | 1 | 4 | 62 | 25 [0.6-81] | 0.04 |
| Score 10-17 | 0 | 0 | 0 | 78 | 0 | Cannot Estimate |
| **Grand Total** |  **26** | **13** | **39** |  |  |  |

*\*Exact binomial method*