



Makassed General Hospital

**The outcome of non-muscle invasive  
urinary bladder tumour at Makassed  
General Hospital**

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# Introduction

- Most common malignancy of the urinary tract, the 7th most common cancer in men and the 17th in women<sup>1</sup>
- Tobacco smoking is the most important risk factor, accounting for 50% of cases<sup>2-3</sup>



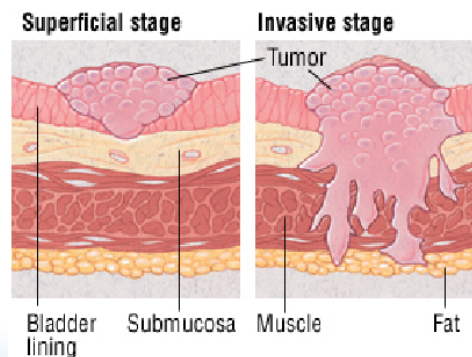
[1] Ferlay J et al. *Int. J. Cancer* 2010; 127:2893-2917.

[2] Burger M et al. *Eur Urol* 2013; 63:234-41.

[3] Freedman ND et al. *JAMA* 2011; 306:737-45.

# Introduction


- 75% of newly diagnosed cases are non-muscle invasive and have a high rate of recurrence and progression despite local therapy. The remaining 25% present with muscle invasion<sup>1-2</sup>




[1] Babjuk M et al. *Eur Urol* 2011; 59:997–1008.

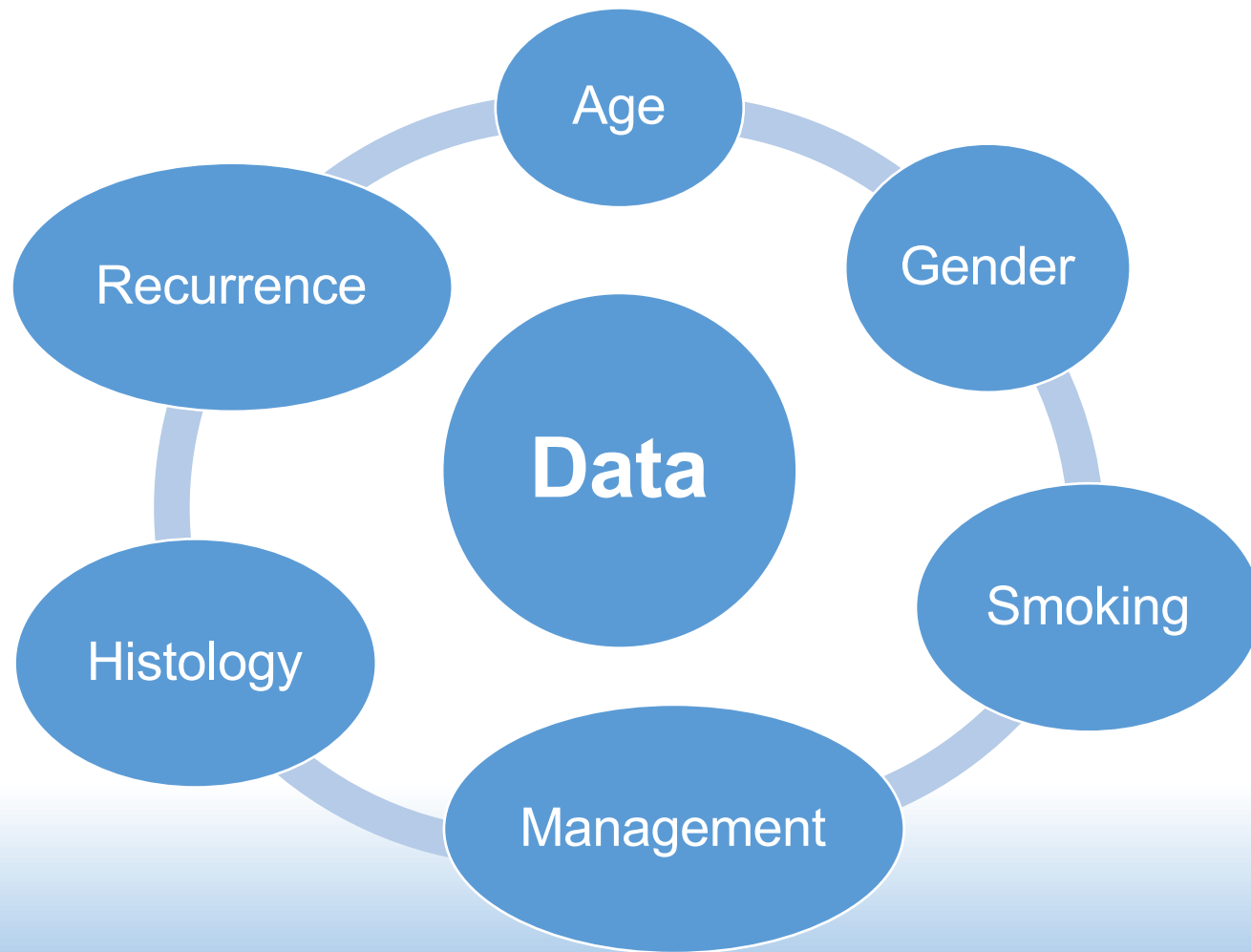
[2] Stenzl A et al. *Eur Urol* 2011; 59:1009–18.

# Objectives

- Document the outcome of non-muscle invasive urinary bladder tumour
  - Provide data on epidemiology
  - Evaluate the effect of treatment on patient quality of life
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# Materials and Methods

- Retrospective cohort study
  - Makassed General Hospital
  - From January 2009 to February 2015
  - Total of 181 patients underwent TURBT
- 



Age

Gender

Data

Smoking

Recurrence

Histology

Management

# Materials and Methods


## Inclusion criteria

- Pathologically confirmed non-muscle invasive bladder tumour (131 patients)

## Exclusion criteria


- Pathologically confirmed muscle invasive urinary bladder tumour at first time resection (32 patients)
- Patients who lost follow-up during the first year of treatment (18 patients)

# Materials and Methods

- Quality of life was assessed using the a validated NCCN-FACT FBISI-18 (Version 2) questionnaire. This questionnaire is a general nonspecific tool that assesses QOL in bladder cancer patients
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# Statistical analysis

- ✓ SPSS version 21 software
  - ✓ Chi-square and ANOVA tests
  - ✓ P-Values below 0.05 were considered statistically significant
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# Results

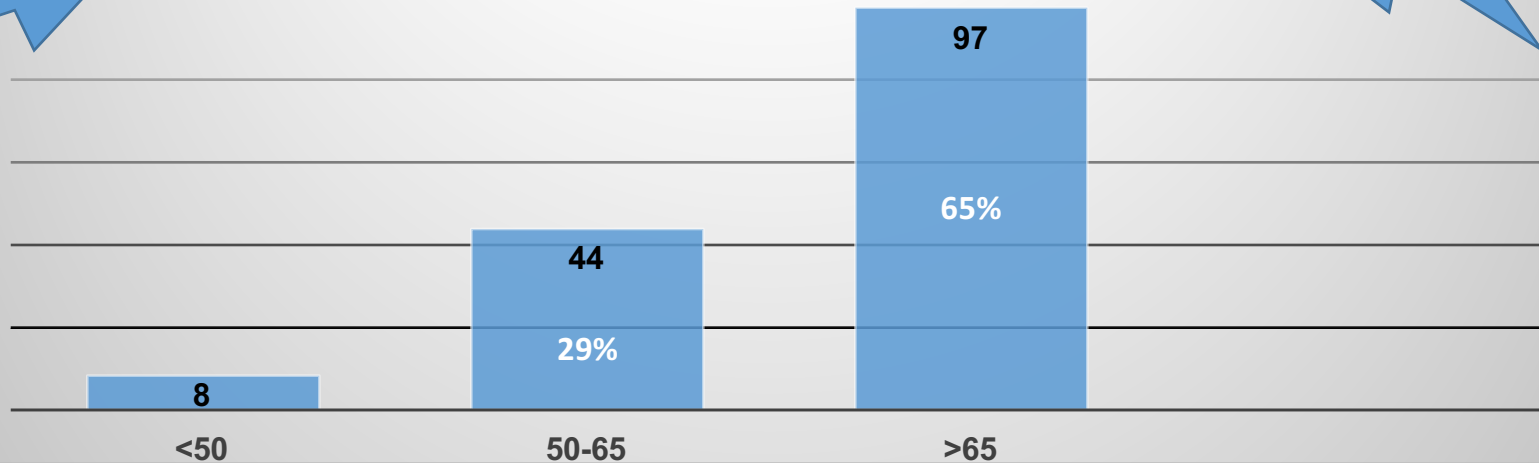


# Age distribution of all bladder cancer cases by gender

86% found to be smokers

122 patients (82%) are male  
27 patients (18%) are female  
male to female ratio 4.5 to 1

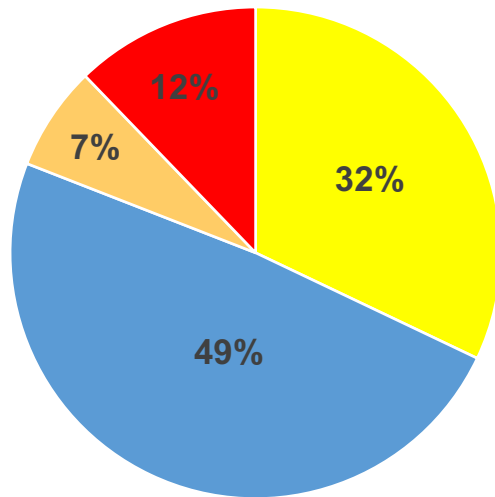
90% presented with hematuria



# Histological tumour characteristics


		Number	Percentage
Pathology result	TCC	146	98.0 %
	Other	3	2.0 %
Tumour stage	Ta	47	31.5 %
	T1	102	68.5 %
Grade	High	41	27.5 %
	Low	108	72.5 %
Tumour size	<3	88	59.1 %
	=>3	61	40.9 %

# Pie chart of patient's management

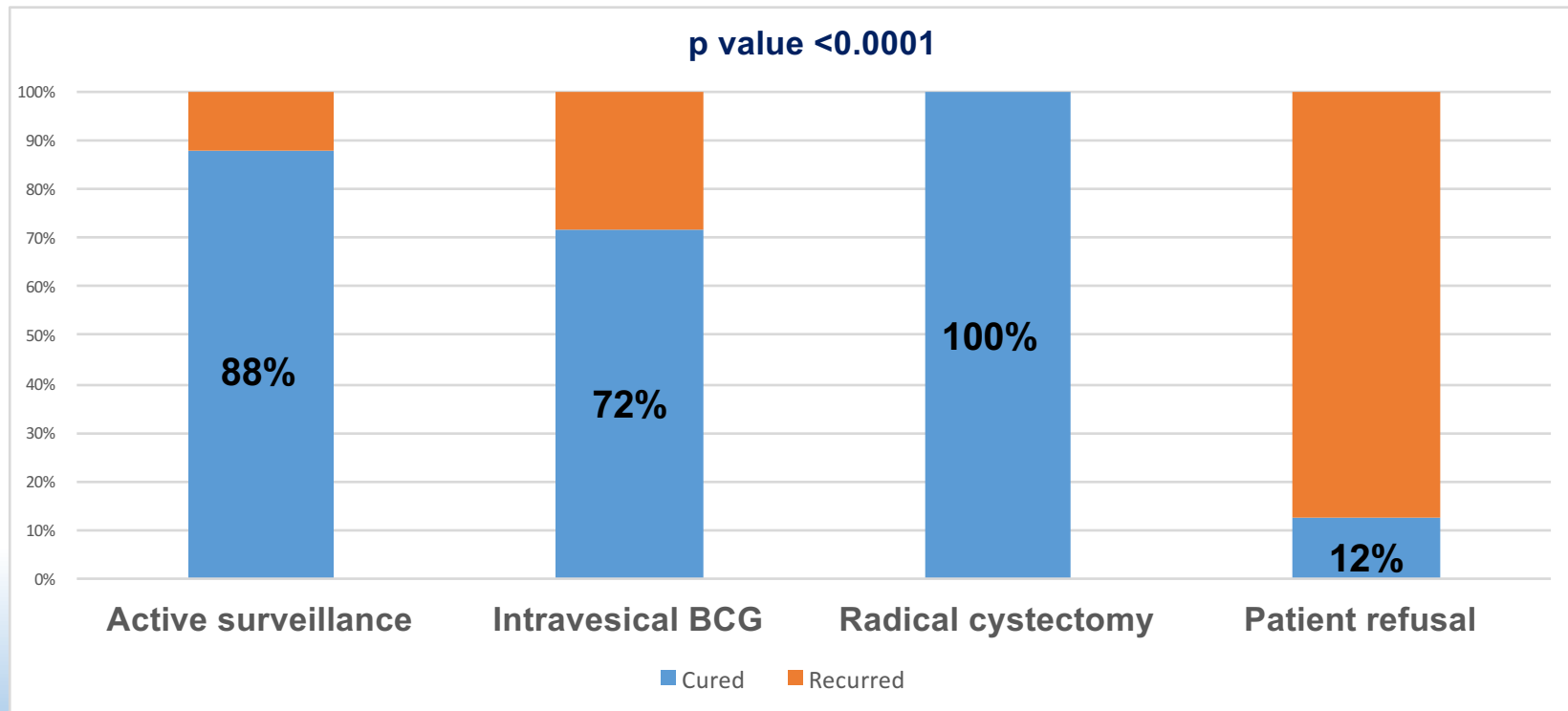


■ Active surveillance ■ Intravesical BCG ■ Radical cystectomy ■ Patient refusal

# Results

- Recurrence rate 28% with no statistical difference between age, sex, smoking, histological types, tumour grade and tumour size
  - 84% of recurrent cases had tumour stage T1, in comparison to 58% in non-recurrent cases with significant p value of 0.007
  - Among the recurrent cases, 70% of patients didn't stop smoking
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# Tumour recurrence according to different treatment protocols



# Univariate analysis for bladder cancer patients in different treatment groups

	Questionnaire item	Surveillance	BCG	Radical C	P-value
<b>Physical Disease Related Symptoms Scale</b>	<b>Pain</b>	0.31 (sd= 0.52 )	1.67 (sd=0.69)	3.22 (sd=0.44)	<b>&lt;0.0001</b>
	<b>Weight loss</b>	0.12 (sd= 0.33)	1.16 (sd=0.48 )	3.22 (sd=0.44)	<b>&lt;0.0001</b>
	<b>Trouble in urine control</b>	0.17 (sd=0.38)	1.81 (sd=0.71)	3.67 (sd=0.50)	<b>&lt;0.0001</b>
	<b>General weakness</b>	0.07 (sd=0.26)	1.16 (sd=0.48)	3.00 (sd=0.00)	<b>&lt;0.0001</b>
	<b>Dizziness</b>	0.02 (sd=0.15)	1.13 (sd=0.45)	3.00 (sd=0.00)	<b>&lt;0.0001</b>
	<b>Trouble in meeting family needs</b>	0.17 (sd=0.44)	1.42 (sd=0.71)	3.56 (sd=0.53)	<b>&lt;0.0001</b>
	<b>Appetite</b>	3.95 (sd=0.22)	3.11 (sd=0.54)	1.56 (sd=0.53)	<b>&lt;0.0001</b>
	<b>(for men only) erection</b>	3.87 (sd=0.34)	3.02 (sd=0.98)	0.00 (sd=0.00)	<b>&lt;0.0001</b>
	<b>Good sleeping</b>	3.83 (sd=0.38)	2.98 (sd=0.63)	1.90 (sd=0.33)	<b>&lt;0.0001</b>
<b>Emotional disease related Symptoms subscale</b>	<b>Worry about the illness</b>	0.10 (sd=0.30)	1.63 (sd=0.63)	3.11 (sd=0.60)	<b>&lt;0.0001</b>
	<b>Sadness</b>	0.14 (sd=0.35)	1.50 (sd=0.64)	3.11 (sd=0.60)	<b>&lt;0.0001</b>



# Univariate analysis for bladder cancer patients in different treatment groups

	Questionnaire item	Surveillance	BCG	Radical C	P-value
<b>Treatment Side Effects Subscale</b>	Nausea	0.02 (sd=0.15)	1.06(sd=0.43)	2.44 (sd=0.53)	<0.0001
	Lack of energy	0.10 (sd=0.30)	1.13 (sd=0.45)	2.89 (sd=0.33)	<0.0001
	Feeling ill	0.05 (sd=0.22)	1.19 (sd=0.53)	2.78 (sd=0.44)	<0.0001
	Bowels control	3.98 (sd=0.15)	3.72 (sd=0.70)	1.89 (sd=0.33)	<0.0001
	Bothering from treatment side effects	0.12 (sd=0.40)	2.01 (sd=0.83)	3.33 (sd=0.50)	<0.0001
<b>Function and well-being subscale</b>	Enjoying life	3.95 (sd=0.22)	2.63(sd=0.81)	1.11 (sd=0.33)	<0.0001
	Satisfaction with quality of live	4.00 (sd=0.00)	2.77 (sd=0.94)	1.00(sd=0.00)	<0.0001

# Discussion



# Discussion

- In Lebanon, incidence increased markedly in the past years<sup>1-2</sup>, having the second highest rate worldwide after Belgium<sup>3</sup>
- 86% of our patients were smokers, which is markedly higher than internationally published data which account for approximately 50% of cases

[1] Colombel M et al. *European Urology Supplements* 2008; 7:618-626.

[2] Shamseddine A et al (2004). *Geneva: WHO*.

[3] Ferlay J et al 2012 *IARC CancerBase* No. 11. Lyon, France.



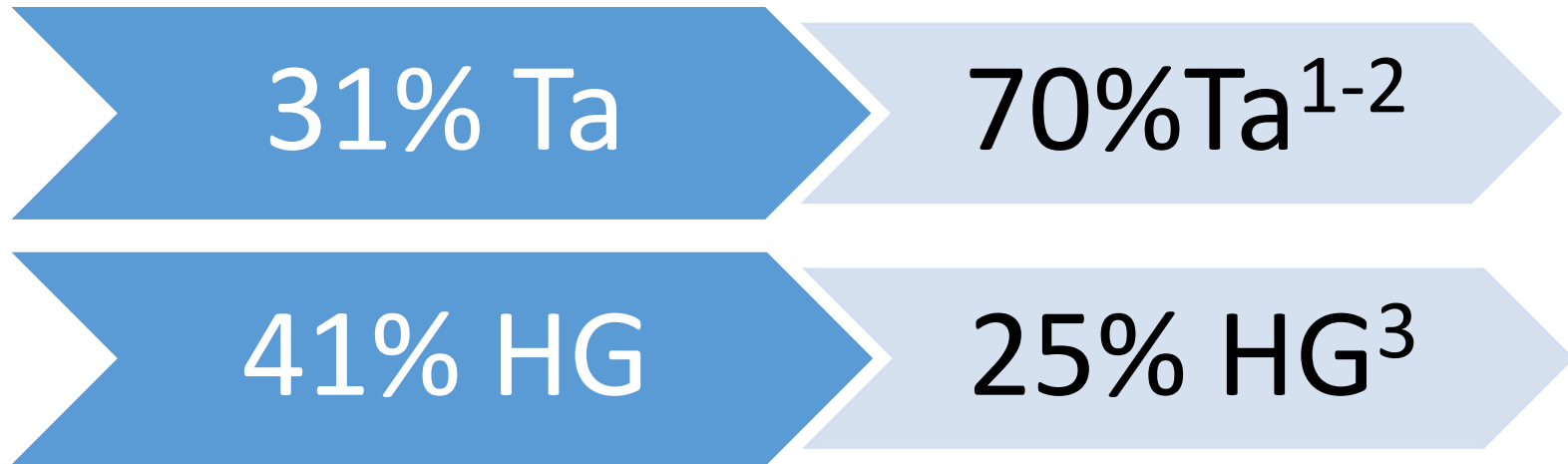
## Unaware about smoking as a risk factor for urinary bladder tumour

58.4% for bladder cancer, 94.6% awareness for COPD, the 92% for heart disease, vascular problems and lung cancer<sup>3</sup>

[1] Burger M et al. *Eur Urol* 2013; 63:234–41.

[2] Saade G et al. *Prev Med* 2008; 47(Suppl 1):S15–S19.

[3] Anastasiou I et al. *Int Urol Nephrol* 2010; 42:309–14.



- This difference may be explained by delay in seeking medical advice in our community, leading to upstaging of tumour at presentation

[1] Kirkali Z et al. *Urology* 2005; 66:4–34.

[2] Fleshner NE et al. *Cancer* 1996; 78:1505–13.

[3] Alan J. Wein et al. *CAMPBELL-WALSH UROLOGY, TENTH EDITION.*



- Comparable to what was published by Sylvester et al, the recurrence rate was 26% for patients treated with adjuvant BCG
- The therapeutic benefit of BCG for T1G3 bladder cancer has been definitively established

Sylvester RJ et al. *J Urol* 2002; 168:1964–70.

# Discussion

- Despite cystectomy provides the most definitive opportunity for cure and obviates the need for repeated intravesical therapies and simplifies follow-up<sup>1</sup>, Cystectomy have a detrimental impact on quality of life secondary to long-term changes in sexual, gastrointestinal, and genitourinary function


[1] Girish S et al. *EUROPEAN UROLOGY* 57(2010); 60–70

# Discussion

- The health burden by urinary bladder cancer is likely to increase in the future, since rising urinary bladder cancer incidence rates are expected in developing countries mainly related to the pronounced and ongoing prevalence of smoking



# Conclusion

- The outcome of non-muscle invasive urinary bladder tumour patients at Makassed General Hospital is comparable to internationally published data, regarding cure rate and recurrence rate
  - Counseling patients regarding the risk of tobacco is a role of urologists
  - Quality of life should be considered in treating urinary bladder tumour patients
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THANK YOU

