BLADDER CANCER
A Global Perspective

Disease and Disability
A Global Perspective

I. Communicable diseases, maternal and perinatal conditions and nutritional deficiencies
II. Noncommunicable conditions.
III. Injuries

Deaths
DALYS

Cancer 5.2%
Cancer 12.9%

Global Disease Burden
Disproportionate by volume and type

Worldwide Cancer Burden

Cancer 13th
Worldwide Cancer Deaths

WHO - Global Burden of Disease
http://www.who.int/healthinfo/global_burden_disease/estimates_regional/index.html

Cancers

More Uniform Burden of Bladder Cancer

WHO - Global Burden of Disease
http://www.who.int/healthinfo/global_burden_disease/estimates_regional/index.html

Worldwide Cancer Deaths

Bladder cancer DALYS

Region

WHO - Global Burden of Disease
http://www.who.int/healthinfo/global_burden_disease/estimates_regional/index.html

BLADDER CANCER 2010

- 70,980 New Cases
- 14,330 Deaths
- > 500,000 survivors
- 70 - 75% are Ta, TIS, T1
- A Spectrum of Disease
  - Recurrence (60%-80%)
  - Progression (5% - 30%)

Bladder Cancer Risk Factors

- Smoking
  - 48% and 28% of bladder cancer deaths in men and women
- Industrial exposure
- Race (White)
- Age (70% > 65)
- Gender (Men 4:1)
- Inflammation
- Birth defects (extrophy)
- Genetics (mutations in Rb, PTEN, HNPCC)
- Chemotherapy and Radiation
- Arsenic
An Unnatural Disaster
Public health intervention has unintended consequences

- In Bangladesh water born communicable diseases responsible for major morbidity and mortality
- To reduce this, use of tube wells instituted
- Rapid success, 97% of rural population uses tube wells
- Unknown then, 50% of such wells contaminated with arsenic
- Arsenicosis has acute and chronic effects - pigmentation and keratosis, lethargy, anemia, neuropathy and increased risks of skin, bladder and lung cancer

BLADDER CANCER
2010 - Mandate

- Prevent bladder cancer
- Define high risk populations for screening, early detection
- Decrease recurrence rates in superficial disease
- Decrease progression rates at all stages
- Improve treatment for advanced disease
- Improve Health - Related Quality of Life at all stages
- Decrease costs of care

Economic Burden of Bladder Cancer

- Drivers of cost - multimodal care of high-risk disease, high recurrence rate in superficial disease, continuous invasive monitoring
  - 60% allocated to superficial disease
- Highest lifetime costs per patient of all cancers, 5th highest of all costs
  - $89,287 - $202,203 diagnosis to death
- Several strategies proposed for reducing burden

BLADDER CANCER
Issues

- Role of exfoliated markers for detection and surveillance
- Indications for and type of intravesical therapy
- Type and length of maintenance therapy
- Second line therapy for those who relapse
- Use of chemotherapy before/with surgery and radiation and is those with metastatic disease
- Efficacy, durability and morbidity of therapy