An estimated 75,300 new cases of Bladder Cancer were diagnosed in 2010. Approximately 75% of all incident bladder tumors are NMI, and half of all incident tumors are Low Grade Ta (LGTa) with moderate risk of recurrence and low rates of progression to muscle invasive disease. The cost impact of the routine use of urinary markers on the cost of surveillance for NMIBC has not been addressed.

**METHODS**

Medicare charges for UroVysion FISH were obtained. Annual costs were calculated for routine utilization of the test at 3, 6, and 12-month intervals and extrapolated to overall 5-year costs per-patient as well as total surveillance costs for a cohort of all NMIBC, and LGTa NMIBC in particular, diagnosed yearly.

**RESULTS**

The cost of FISH is $800. The total cohort of NMIBC and LGTa NMIBC diagnosed in 2010 was estimated at 52,898, and 35,265 patients respectively. The one-year cost of adding UroVysion® FISH analysis to the surveillance regimen for the total cohort of LGTa and all NMIBC for a yearly regimen would be $28,212,000, and $42,318,400, respectively. The yearly cost for the total cohort of LGTa and all NMIBC on a six-month regimen would be $56,424,000, and $84,636,800, respectively. The yearly cost for the total cohort of LGTa and all NMIBC on a three-month regimen would be $112,848,000, and $169,273,600, respectively. The five-year cost of adding UroVysion® FISH analysis to the for total surveillance regimen the cohorts of LGTa and all NMIBC on a yearly regimen would be $141,060,000, and $211,592,000, respectively. The five-year cost for the total cohorts of LGTa and all NMIBC on a six-month regimen would be $282,120,000, and $423,184,000, respectively. The five-year cost for the total cohorts of LGTa and all NMIBC on a three-month regimen would be $564,240,000, and $846,368,000, respectively.

**COST ANALYSIS OF ADDING UROVYSION® FISH TO SURVEILLANCE FOR NMIBC**

<table>
<thead>
<tr>
<th></th>
<th>Yearly Test Cost</th>
<th>Five-Year Test Cost</th>
<th>One-Year LGTa Total Surveillance Cost</th>
<th>Five-Year LGTa Total Surveillance Cost</th>
<th>One-Year NMIBC Total Surveillance Cost</th>
<th>Five-Year NMIBC Total Surveillance Cost</th>
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</thead>
<tbody>
<tr>
<td>Yearly</td>
<td>$800</td>
<td>$4,000</td>
<td>$28,212,000</td>
<td>$141,060,000</td>
<td>$42,318,400</td>
<td>$211,592,000</td>
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<tr>
<td>Six-Month Interval</td>
<td>$1,600</td>
<td>$8,000</td>
<td>$56,424,000</td>
<td>$282,120,000</td>
<td>$84,636,800</td>
<td>$423,184,000</td>
</tr>
<tr>
<td>Three-Month Interval</td>
<td>$3,200</td>
<td>$16,000</td>
<td>$112,848,000</td>
<td>$564,240,000</td>
<td>$169,273,600</td>
<td>$846,368,000</td>
</tr>
</tbody>
</table>

**CONCLUSION**

With an aging population and heightened economic pressure to provide cost-effective care, it is important to recognize the potential for substantial added cost associated with routine utilization of UroVysion FISH in surveillance of NMIBC. It is important to note that these costs are in addition to the significant health care costs incurred by guidelines-recommended cystoscopy, urinary cytology, and office visits. Further studies are needed to clarify the utility of this test, and the nature and magnitude of benefit associated with this, given the potential for substantial added costs.

**REFERENCES**

Kamat AM, Karam JA, Grossman HB, Kader AK, Munsell M, Dinney CP. Prospective trial to identify optimal bladder cancer surveillance protocol: reducing costs while maximizing sensitivity. BJU Int. Epub 2011 Mar 22

**Table 1.1. Estimated new cancer cases and costs.**

With an aging population and heightened economic pressure to provide cost-effective care, it is important to recognize the potential for substantial added cost associated with routine utilization of UroVysion FISH in surveillance of NMIBC. It is important to note that these costs are in addition to the significant health care costs incurred by guidelines-recommended cystoscopy, urinary cytology, and office visits. Further studies are needed to clarify the utility of this test, and the nature and magnitude of benefit associated with this, given the potential for substantial added costs.