RECOMMENDATIONS FOR FIREFIGHTER PHYSICAL EXAMS AND SCREENING TESTS

To:   Primary Care Physicians
       Re:  Comprehensive Annual Physical Exams for Firefighters

Chronic exposure to heat, smoke and toxins cause numerous adverse physiological changes in firefighters.  Boston firefighters have nearly three times the risk of developing coronary artery disease and cancer than other Boston residents.  Eleven active Boston firefighters have died in the past year and most of these deaths were caused by either cancer or cardiovascular disease.  Comprehensive firefighter physical exams and screening tests focusing on primary prevention of cardiovascular disease and cancer should be done annually.  Firefighters should also participate in an aerobic and core muscle conditioning program for at least forty-five minutes per shift to help prevent these occupational related diseases.

The following list contains the recommendations for annual firefighter physicals that are necessary given the extraordinary health risks associated with firefighting.

1) Specific risk factors and screenings for heart disease should include:

- Family history of coronary artery disease
- Diabetes
- Smoking
- Hypertension
- Elevated cholesterol
- Obesity
- Sedentary Lifestyle
- Alcohol and Substance Abuse

2) Prevalent cancers in firefighters that need to be screened for ten years earlier than the general population, where applicable, include:

- Skin
- Lung
- Colon
- Kidney
- Prostate
- Bladder
- Brain
- Leukemia
- Lymphoma

3) Annual exam should include:

- Blood pressure, pulse, respiratory rate, and temperature
- Oxygen saturation
- Weight and body fat index
- Thorough skin exam
- Eye exam and hearing testing
- Oral exam
- Heart and lung exam
- Abdominal and testicular exam
- Prostate and rectal exam with fecal occult blood testing
- Pelvic and Pap exam for female firefighters
- Vascular, neurological and mental status exams
4) Annual lab and screening tests should include:

<table>
<thead>
<tr>
<th>Test Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive metabolic and chemistry panel</td>
</tr>
<tr>
<td>Liver function tests</td>
</tr>
<tr>
<td>Hepatitis profile</td>
</tr>
<tr>
<td>Complete blood count</td>
</tr>
<tr>
<td>Thyroid panel</td>
</tr>
<tr>
<td>Hemoglobin A1c (for diabetes monitoring)</td>
</tr>
<tr>
<td>Fasting lipid profile and blood glucose</td>
</tr>
<tr>
<td>Urinalysis</td>
</tr>
<tr>
<td>EKG</td>
</tr>
<tr>
<td>PSA (Prostate specific antigen begin at age 40 for prostate cancer screening)</td>
</tr>
<tr>
<td>Pulmonary function test every three years</td>
</tr>
<tr>
<td>Chest x-ray every three years</td>
</tr>
<tr>
<td>Colonoscopy (begin age 40 and every five years)</td>
</tr>
<tr>
<td>Exercise stress test (begin age 40 and every three years)</td>
</tr>
<tr>
<td>Mammograms for female firefighters (begin age 35 and then every year)</td>
</tr>
</tbody>
</table>

The Boston Fire Department greatly appreciates the time and energy of the primary care physicians performing these comprehensive exams. These efforts will play a vital role in improving the health and fitness of all Boston firefighters.

Respectfully,

Michael G. Hamrock, MD
Boston Fire Department
(617)343-3305
March 31, 2008