**Updated 18F-Fluciclovine Training Module Updates**

Since its approval in mid-2016, tens of thousands of men with biochemical recurrent prostate cancer have been imaged with 18F-fluciclovine (Axumin® (fluciclovine F 18)). As with all diagnostic agents, we continue to enhance our image interpretation guidance for this novel amino acid tracer. These minor modifications are described in the training module and summarized below.

Patients should be encouraged to void approximately **30-60 minutes** before scanning to reduce the potential impact of early urinary excretion (seen in minority of patients) into the bladder. (slide 15)

* If patient voids within 30 minutes prior to start of scan, there is a possibility of the early appearance of radioactivity in the bladder and this should be taken into account during image interpretation. This activity is usually generalised, but occasionally may be focal in nature (potentially simulating the appearance of a nodule adjacent to the bladder wall), at least on the early images.

Interpretation of uptake in Seminal Vesicles (slide 37)

* In seminal vesicles, with or without the prostate present, symmetric bilateral uptake, similar to blood pool, is likely to be physiologic
* Asymmetric seminal vesicle uptake, between blood pool and marrow, may increase the suspicion for malignancy; consider pelvis MRI for further characterization

Interpretation of Lymph Nodes (slides 38-39)

1. Lymph nodes in a typical site of recurrence of prostate cancer**, equal to or greater than 1 cm (maximum dimension)**

|  |  |
| --- | --- |
| **Uptake less than or equal to blood pool** | Likely benign |
| **Uptake between blood pool and bone marrow** | Follow-up recommended\* |
| **Uptake equal to or greater than bone marrow** | Likely malignant |

*\* Uptake not meeting threshold for malignancy (equivocal) may require follow-up and clinical correlation.*

* Uptake in lymph nodes ≥ 1 cm in a typical site of recurrence of prostate cancer should have a higher threshold for positivity relative to lymph nodes < 1 cm
  + If a node ≥ 1 cm does not meet this threshold of equal to or greater than bone marrow (including those approaching, but not reaching, bone marrow) it should be reported as such but requires follow-up and clinical correlation

1. Lymph nodes in a typical site of recurrence of prostate cancer**, less than 1 cm   
   (maximum dimension)**

|  |  |
| --- | --- |
| **Uptake less than blood pool** | Likely benign |
| **Uptake greater than or equal to blood pool, but not close to bone marrow** | Follow-up recommended\* |
| **Uptake significantly greater than blood pool,  close to, equal to, or greater than bone marrow** | Likely malignant |

\* *Uptake not meeting threshold for malignancy (equivocal) may require follow-up and clinical correlation.*

* Uptake in a lymph node < 1 cm in a typical site of recurrence of prostate cancer has a lower threshold for positivity, which is considered significantly greater than blood pool (i.e. close to, equal to, or greater than marrow)
  + If a node < 1 cm does not meet this threshold it should be reported as such but requires follow-up and clinical correlation