

**Supplemental Table 1.** The fluciclovine ( $^{18}\text{F}$ ) acquisition and interpretation training session

Agenda item	Training module
1	Amino-acid based imaging
2	Historical review of fluciclovine ( $^{18}\text{F}$ ) development
3	Mechanism of uptake
4	Biodistribution and Dosimetry
5	Physiologic uptake patterns
6	Recommended methodology for image review
7	Incidental uptake & variants
8	Inflammation
9	Image interpretation criteria and related case reviews
10	Demonstration cases (via video) with correct image interpretation

**Supplemental Table 2.** Region and subject level fluciclovine (<sup>18</sup>F) PET/CT BIE outcomes compared with secondary SOT

	Reader 1			Reader 2			Reader 3			Overall interpretation		
	Region		Subject	Region		Subject	Region		Subject	Region		Subject
	P	E-P		P	E-P		P	E-P		P	E-P	
N	120	117	118	119	120	119	117	104	112	119	116	116
TP, n (%)	81 (67.5)	31 (26.5)	92 (78.0)	79 (66.4)	32 (26.7)	89 (74.8)	66 (56.4)	26 (25.0)	78 (69.6)	73 (61.3)	29 (25.0)	84 (72.4)
FP, n (%)	24 (20.0)	18 (15.4)	20 (16.9)	21 (17.6)	19 (15.8)	19 (16.0)	12 (10.3)	7 (6.7)	9 (8.0)	18 (15.1)	9 (7.8)	15 (12.9)
TN, n (%)	13 (10.8)	62 (53.0)	5 (4.2)	15 (12.6)	63 (52.5)	6 (5.0)	24 (20.5)	64 (61.5)	13 (11.6)	19 (16.0)	69 (59.5)	8 (6.9)
FN, n (%)	2 (1.7)	6 (5.1)	1 (0.8)	4 (3.4)	6 (5.0)	5 (4.2)	15 (12.8)	7 (6.7)	12 (10.7)	9 (7.6)	9 (7.8)	9 (7.8)
PPV (%)	77.1*	63.3*	82.1*	79.0*	62.7*	82.4*	84.6*	78.8*	89.7*	80.2*	76.3*	84.8*
NPV (%)	86.7*	91.2*	83.3	78.9*	91.3*	54.5	61.5	90.1*	52.0	67.9*	88.5*	47.1
Sens (%)	97.6*	83.8*	98.9*	95.2*	84.2*	94.7*	81.5*	78.8*	86.7*	89.0*	76.3*	90.3*
Spec (%)	35.1	77.5*	20.0	41.7	76.8*	24.0	66.7*	90.1*	59.1	51.4	88.5*	34.8

\*p<0.05. N, the number of subjects in the analysis; n, subjects in the region/subjects meeting the criterion in the analysis.

CI, confidence interval; E-P, extra-prostatic; P, prostatic; Sens, sensitivity; Spec, specificity.

**Supplemental Figure 1.** ROC space analysis for the 3 readers

