

PL-7 Dose Capability (based on 2006 field trial of mobile Pulsar)

Delivery sites	3	
Dose size	15	mCi
Chemical Yield	65%	
Target Yield	1222	mCi
Bombardment	2.5	hours
Targets	1	
Dual yield factor	1	
Delivery time	2	hours (ship on hold at EoS)
Scanner time/patient	1	hours

45 mCi required for the number of sites and dose size selected

First Run				Second Run				Third Run			
Start Bombardment	2:15	mCi		Start Bombardment	5:15	mCi		Start Bombardment	8:15	mCi	
End of Bombardment	4:45	1222	¹⁸ F	End Bombardment	7:45	1222	¹⁸ F	End Bombardment	10:45	1222	¹⁸ F
End of Synthesis	5:30	598	[¹⁸ F]FDG	End Synthesis	8:30	598	[¹⁸ F]FDG	End Synthesis	11:30	598	[¹⁸ F]FDG
Release Product	6:30	409	[¹⁸ F]FDG	Release Product	9:30	409	[¹⁸ F]FDG	Release Product	12:30	409	[¹⁸ F]FDG
Product delivered	7:30	280	[¹⁸ F]FDG	Product delivered	10:30	280	[¹⁸ F]FDG	Product delivered	13:30	280	[¹⁸ F]FDG
Scan 1	8:00	232	[¹⁸ F]FDG	Scan 1	11:00	289	[¹⁸ F]FDG	Scan 1	14:00	258	[¹⁸ F]FDG
2	9:00	128	[¹⁸ F]FDG	2	12:00	167	[¹⁸ F]FDG	2	15:00	146	[¹⁸ F]FDG
3	10:00	57	[¹⁸ F]FDG	3	13:00	83	[¹⁸ F]FDG	3	16:00	69	[¹⁸ F]FDG
4	11:00	8	[¹⁸ F]FDG	4	14:00	26	[¹⁸ F]FDG	4	17:00	17	[¹⁸ F]FDG
5	12:00	0	[¹⁸ F]FDG	5	15:00	0	[¹⁸ F]FDG	5	18:00	0	[¹⁸ F]FDG
6	13:00	0	[¹⁸ F]FDG	6	16:00	0	[¹⁸ F]FDG	6	19:00	0	[¹⁸ F]FDG
7	14:00	0	[¹⁸ F]FDG	7	17:00	0	[¹⁸ F]FDG	7	20:00	0	[¹⁸ F]FDG
8	15:00	0	[¹⁸ F]FDG	8	18:00	0	[¹⁸ F]FDG	8	21:00	0	[¹⁸ F]FDG
9	16:00	0	[¹⁸ F]FDG	9	19:00	0	[¹⁸ F]FDG	9	22:00	0	[¹⁸ F]FDG
10	17:00	0	[¹⁸ F]FDG	10	20:00	0	[¹⁸ F]FDG	10	23:00	0	[¹⁸ F]FDG

Calculations are based on 62 μA beam incident on ¹⁸[O]Water, production rate 32.2 mCi/μA.

The worksheet is protected so that entries may be made only in the highlighted boxes to protect formulae. To unprotect, press tools, protection, unprotect.

To schedule the bombardments, locate the time at which **First Run** activity falls below the required activity. Use that corresponding time for Scan 1 in the second bombardment.. Repeat for the Third Run

In this example, 3 imaging centers can scan 9 patients each from a 2.5 hour bombardment. That is, 27 patients per day.