COPYRIGHT © BY THE JOURNAL OF BONE AND JOINT SURGERY, INCORPORATED LORENZANA ET AL. COMPARISON OF SIMULATED LOW-DOSE AND CONVENTIONAL-DOSE CT FOR PREOPERATIVE PLANNING IN SHOULDER ARTHROPLASTY http://dx.doi.org/10.2106/JBJS.20.01916 Page 1

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	Blueprint			Materialise			Observer 1			C	Observer 2		Observer 3			
ID	Dose	Version	Inclination	Subluxation	Version	Inclination	Subluxation	Version	Inclination	Subluxation	Version	Inclination	Subluxation	Version	Inclination	Subluxation
1	75%	1	1	0	0	2	1	3	1	0	1	2	9	2	3	7
	50%	1	1	0	1	0	2	1	1	6	2	1	5	0	1	1
	25%	3	1	5	0	0	5	1	1	6	3	0	2	1	2	1
2	75%	0	0	1	2	0	1	2	1	2	3	0	1	1	1	2
	50%	0	1	1	6	3	1	3	0	1	0	1	0	0	2	3
	25%	0	1	1	2	0	3	1	2	1	6	4	5	2	0	5
3	75%	0	1	3	1	1	7	0	0	0	1	1	2	0	3	7
	50%	1	1	0	1	0	1	1	1	2	1	2	4	0	2	2
4	25%	0	2	6	2	3	3	1	0	2	0	1	4	0	4	8
	75%	1	0	1	0	1	0	4	1	4	1	1	5	2	1	1
	50%	1	0	1	1	2	0	3	0	3	2	0	5	1	1	4
	25%	1	4	1	1	1	1	1	5	7	1	2	5	1	2	4
5	75%	1	1	2	4	2	2	1	1	0	1	3	4	0	3	1
	50%	1	1	2	2	1	1	0	0	1	1	0	8	0	0	0
	25%	2	3	6	2	0	0	0	1	0	1	2	0	0	2	4
6	75%	0	0	0	0	1	0	1	1	0	1	1	0	0	0	1
	50%	1	9	0	2	0	1	0	0	1	0	0	0	2	1	1
	25%	0	3	1	1	3	9	0	1	1	0	1	2	0	2	2
7	75%	0	1	0	0	0	0	2	0	1	2	2	5	1	1	0
	50%	0	1	3	0	0	1	1	1	3	1	2	2	0	0	5
	25%	0	0	2	1	1	1	0	0	1	0	0	2	1	4	1
8	75%	1	2	1	1	1	1	1	0	1	0	2	5	1	4	10
	50%	0	1	4	13	5	5	1	1	0	0	1	0	3	1	2
	25%	1	2	2	12	3	6	0	1	1	1	1	5	2	1	7
9	75%	0	1	0	2	1	1	2	1	2	0	1	4	1	2	7

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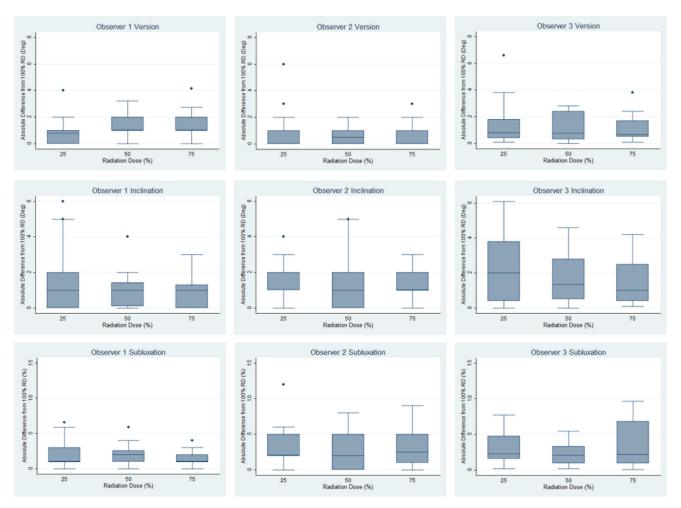
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	50%	0	1	1	1	1	1	1	0	2	0	1	0	3	2	0
10	25%	0	1	1	2	1	0	1	0	1	2	1	0	3	0	2
	75%	0	0	2	2	2	1	1	2	1	0	0	0	2	1	2
	50%	1	2	1	1	2	1	2	1	3	0	2	2	1	0	1
	25%	2	1	3	4	3	1	4	1	3	0	2	4	7	0	2
11	75%	0	0	1	0	1	1	0	1	1	0	1	2	1	3	1
	50%	0	0	1	1	1	1	1	1	1	0	0	2	1	2	2
	25%	1	0	0	2	2	1	1	1	1	0	3	0	1	0	2
12	75%	0	0	0	0	0	0	2	0	3	0	1	2	1	0	2
	50%	0	0	0	0	0	0	1	1	2	0	1	0	1	1	5
	25%	1	1	0	1	0	1	1	0	0	0	2	2	0	0	2
13	75%	0	1	0	2	2	3	1	3	3	1	2	8	1	3	0
	50%	0	0	0	7	1	0	1	4	2	0	4	2	2	4	2
	25%	1	1	0	0	1	0	0	6	3	0	3	6	1	4	6
14	75%	1	0	0	0	1	0	1	1	1	0	3	2	0	2	0
	50%	1	1	3	0	0	0	1	0	1	1	1	0	3	3	4
	25%	1	1	1	0	1	0	2	0	0	1	0	12	0	1	0
15	75%	0	0	0	0	0	0	1	2	1	0	2	3	4	0	9
	50%	1	1	2	0	0	0	3	4	4	2	5	6	1	5	0
	25%	2	1	4	0	0	0	0	5	2	1	4	6	4	6	2
16	75%	1	1	1	0	0	1	0	1	2	1	0	0	2	0	2
	50%	0	0	1	1	0	0	0	2	2	1	1	0	2	1	3
	25%	1	1	5	3	2	1	0	2	3	0	1	2	2	3	5
17	75%	0	0	1	1	1	1	1	3	2	0	1	5	1	0	4
	50%	0	0	7	2	2	1	2	4	2	1	1	6	2	3	1
	25%	0	1	4	2	2	1	3	4	0	1	2	6	2	2	6
18	75%	3	1	2	1	0	0	1	0	1	1	1	0	2	1	4
	50%	0	1	3	1	0	0	2	1	0	0	0	8	1	4	1
	25%	0	0	1	1	1	0	1	0	1	1	2	0	1	5	1
				11.00	C 10			0	1 1 0							

Table A1: Absolute difference from 100% RD measurements for each platform and observer.

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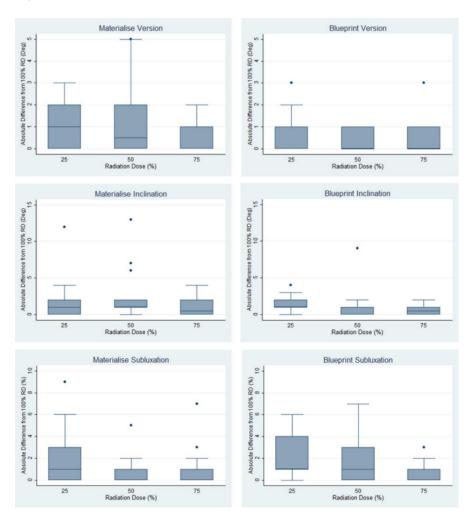


Appendix Figure A1: Absolute difference from 100% RD measurements for each physician observer. Each bar represents measurements by radiation dose (RD). Box represents interquartile range (IQR) and whiskers represent 1.5IQR or closest datapoint. Data outside of this range is represented by individual dots.

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Appendix Figure A2: Absolute differences from 100% RD measurement for each semi-automated software platform. Each bar represents measurements by radiation dose (RD). Box represents interquartile range (IQR) and whiskers represent 1.5IQR or closest datapoint. Data outside of this range is represented by individual dots.