

**Supplemental Digital Content 1: Algorithm for determination of resident operative role**

Staff Trauma Surgeon 1	Staff Trauma Surgeon 2	Trauma Fellow	Other Service Staff Surgeon*	Other Service Fellow	Most Senior GenSurg Resident	Other GenSurg Resident	Most Senior GenSurg Resident Role <i>BEST</i>	Most Senior GenSurg Resident Role <i>WORST</i>	Other GenSurg Resident <i>BEST</i>	Other GenSurg Resident <i>WORST</i>
Y	N	N	N	N	Y	N	Operator	1st	Missed	Missed
Y	Y	N	N	N	Y	N	1st	2nd	Missed	Missed
Y	N	N	N	N	Y	Y	Operator	1st	1st	2nd
Y	Y	N	N	N	Y	Y	1st	2nd	2nd	3rd
Y	N	N	N	N	N	N	Missed	Missed	Missed	Missed
Y	Y	N	N	N	N	N	Missed	Missed	Missed	Missed
Y	N	Y	N	N	Y	N	Operator	2nd	Missed	Missed
Y	N	Y	N	N	Y	Y	Operator	2nd	2nd	3rd
Y	Y	Y	N	N	Y	N	2nd	3rd	Missed	Missed
Y	Y	Y	N	N	Y	Y	2nd	3rd	3rd	4th
Y	N	N	Y	N	N	N	Missed	Missed	Missed	Missed
Y	N	N	Y	N	Y	N	1st	2nd	Missed	Missed
Y	N	N	Y	N	Y	Y	1st	2nd	2nd	3rd
Y	Y	N	Y	N	Y	N	2nd	3rd	Missed	Missed
Y	Y	N	Y	N	Y	Y	2nd	3rd	3rd	4th
Y	N	Y	Y	N	N	N	Missed	Missed	Missed	Missed
Y	N	Y	Y	N	Y	N	2nd	3rd	Missed	Missed
Y	N	Y	Y	N	Y	Y	2nd	3rd	3rd	4th
Y	Y	Y	Y	N	N	N	Missed	Missed	Missed	Missed
Y	Y	Y	Y	N	Y	N	2nd	4th	Missed	Missed
Y	Y	Y	Y	N	Y	Y	2nd	4th	3rd	5th
Y	N	N	Y	Y	N	N	Missed	Missed	Missed	Missed
Y	N	N	Y	Y	Y	N				Missed

Y	N	N	Y	Y	Y	Y				
Y	N	N	N	Y	N	N	Missed	Missed	Missed	Missed
Y	N	N	N	Y	Y	N			Missed	Missed
Y	N	N	N	Y	Y	Y				
Y	Y	N	Y	Y	N	N			Missed	Missed
Y	Y	N	Y	Y	Y	N			Missed	Missed
Y	Y	N	Y	Y	Y	Y				
Y	Y	N	N	Y	N	N	Missed	Missed	Missed	Missed
Y	Y	N	N	Y	Y	N			Missed	Missed
Y	Y	N	N	Y	Y	Y				
Y	N	Y	Y	Y	N	N	Missed	Missed	Missed	Missed
Y	N	Y	Y	Y	Y	N			Missed	Missed
Y	N	Y	Y	Y	Y	Y				
Y	N	Y	N	Y	N	N	Missed	Missed	Missed	Missed
Y	N	Y	N	Y	Y	N			Missed	Missed
Y	N	Y	N	Y	Y	Y				
Y	Y	Y	Y	Y	N	N	Missed	Missed	Missed	Missed
Y	Y	Y	Y	Y	Y	N			Missed	Missed
Y	Y	Y	Y	Y	Y	Y				