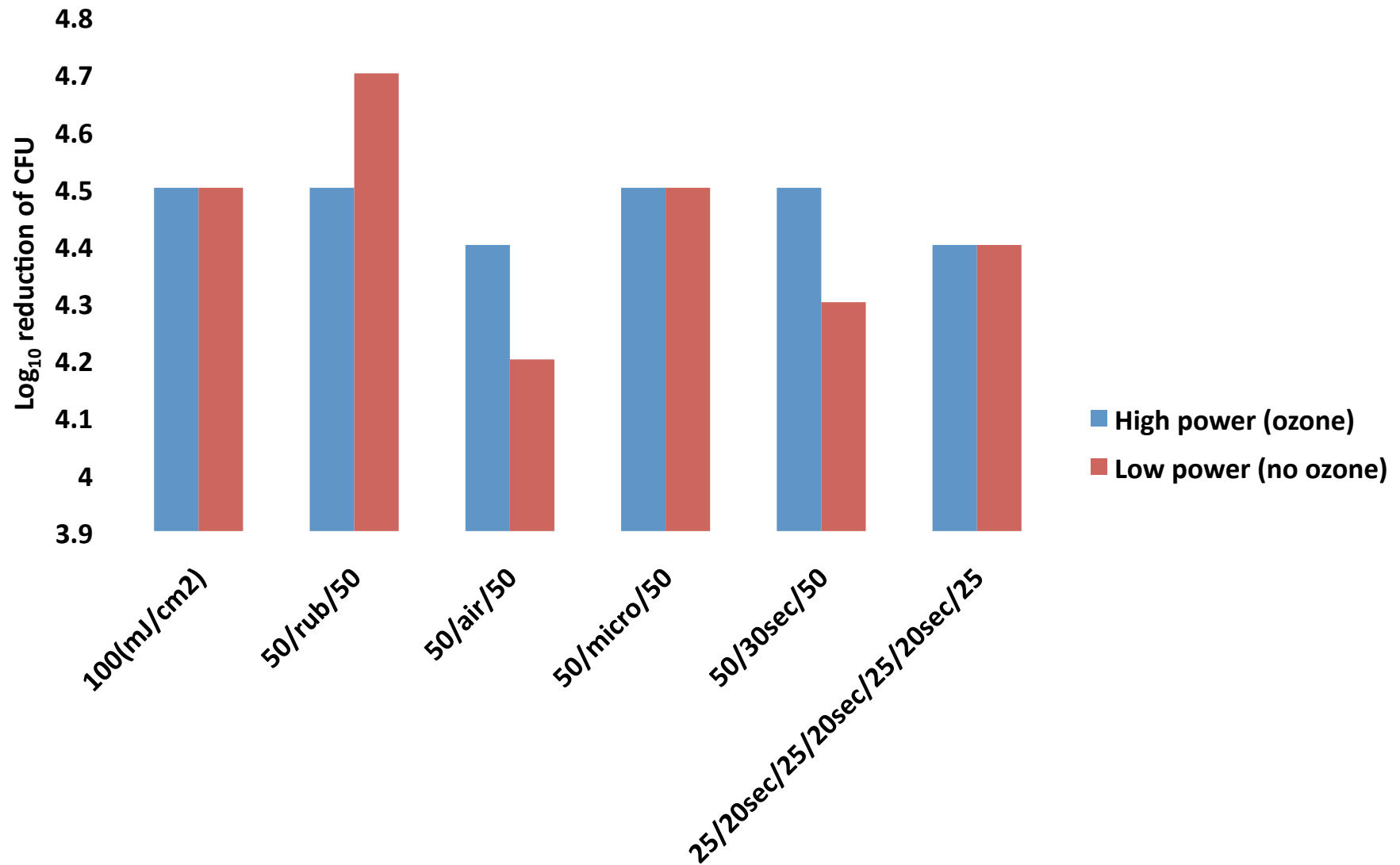
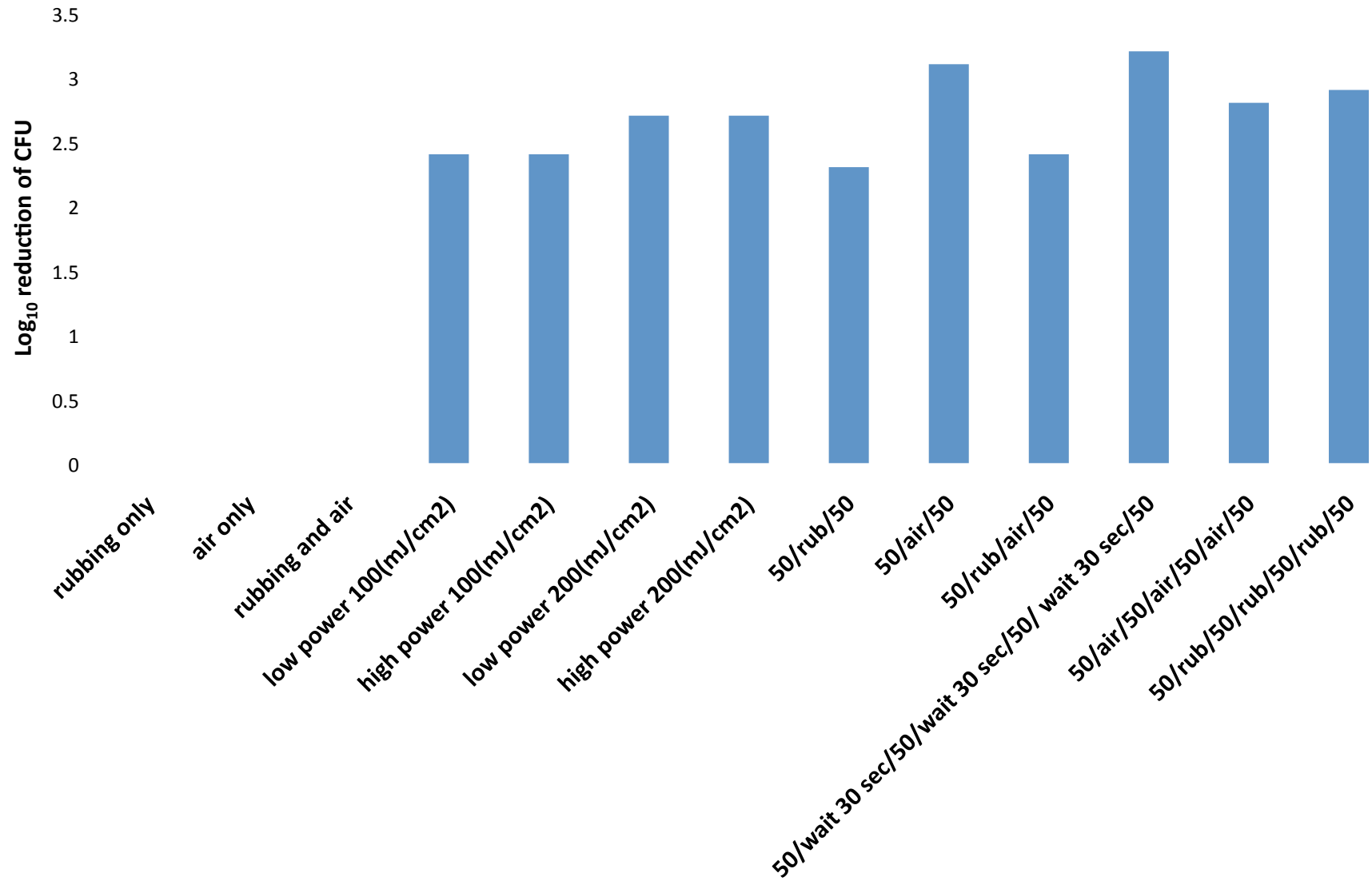


Reduction of *Staph warneri* on finger pads 08-05-2010



Reduction of *C. difficile* on finger pads 08-05-2010



Sterilray Experiment with John Neister, Thursday 8-5-10

Staph warneri grown up on a TSA blood plate for 24 hours, several colonies suspended in 1 ml PBS
 C. difficile ATCC 43593 dormant spores (natural prep, debris)

John washed and bleached his hands before finger pads were inoculated
 10 ul of of spore or Staph suspension inoculated onto each finger pad, spread gently with sterile loop and allowed to air dry

Staph warneri results

baseline titer: 11.7 log₁₀ CFU/mL

vegetative staph desiccated onto finger pads, assuming a 3 log reduction in CFU, each finger pad inoculated with 6.7 log₁₀ CFU

Staph only (baseline finger prints)	6.7		High power (ozone)	Low power (no ozone)
rubbing (3 sec) only	6.7	100(mJ/cm ²)	4.5	4.5
air (3 sec) only	6.7	50/rub/50	4.5	4.7
microfiber (3 sec) only	5.7	50/air/50	4.4	4.2
100 low power	2.2	50/micro/50	4.5	4.5
100 high power	2.2	50/30sec/50	4.5	4.3
low power 50/rub/50	2	25/20sec/25/20sec/25/20sec/25	4.4	4.4
low power 50/air/50	2.5			
low power 50/micro/50	2.2		log reductions	
low power 50/wait 30sec/50	2.4			
low power 25/20sec/25/20sec/25/20sec/25	2.3			
high power 50/rub/50	2.2			
high power 50/air/50	2.3			
high power 50/micro/50	2.2			
high power 50/wait 30sec/50	2.2			
high power 25/20sec/25/20sec/25/20sec/25	2.3			

C. difficile results

baseline titer: 6.4 log₁₀ CFU/mL

10 ul of spores air dried onto each finger pad: 4.4 log₁₀ CFU

C. difficile spores only (baseline)	4.4	rubbing only	0
rubbing (3 sec) only	4.4	air only	0
air (3 sec) only	4.4	rubbing and air	0
rubbing (3 sec) air (3 sec)	4.4	low power 100(mJ/cm ²)	2.4
100 low power	2	high power 100(mJ/cm ²)	2.4
100 high power	2	low power 200(mJ/cm ²)	2.7
200 low power	1.7	high power 200(mJ/cm ²)	2.7
200 high power	1.7	50/rub/50	2.3
50/rub/50	2.1	50/air/50	3.1
50/air/50	1.3	50/rub/air/50	2.4
50/rub/air/50	2	50/wait 30 sec/50/wait 30 sec/50/ wait 30 sec/50	3.2
50/wait 30 sec/50/wait 30 sec/50/ wait 30 sec,	1.2	50/air/50/air/50/air/50	2.8
50/air/50/air/50/air/50	1.6	50/rub/50/rub/50/rub/50	2.9
50/rub/50/rub/50/rub/50	1.5		
		log reductions	