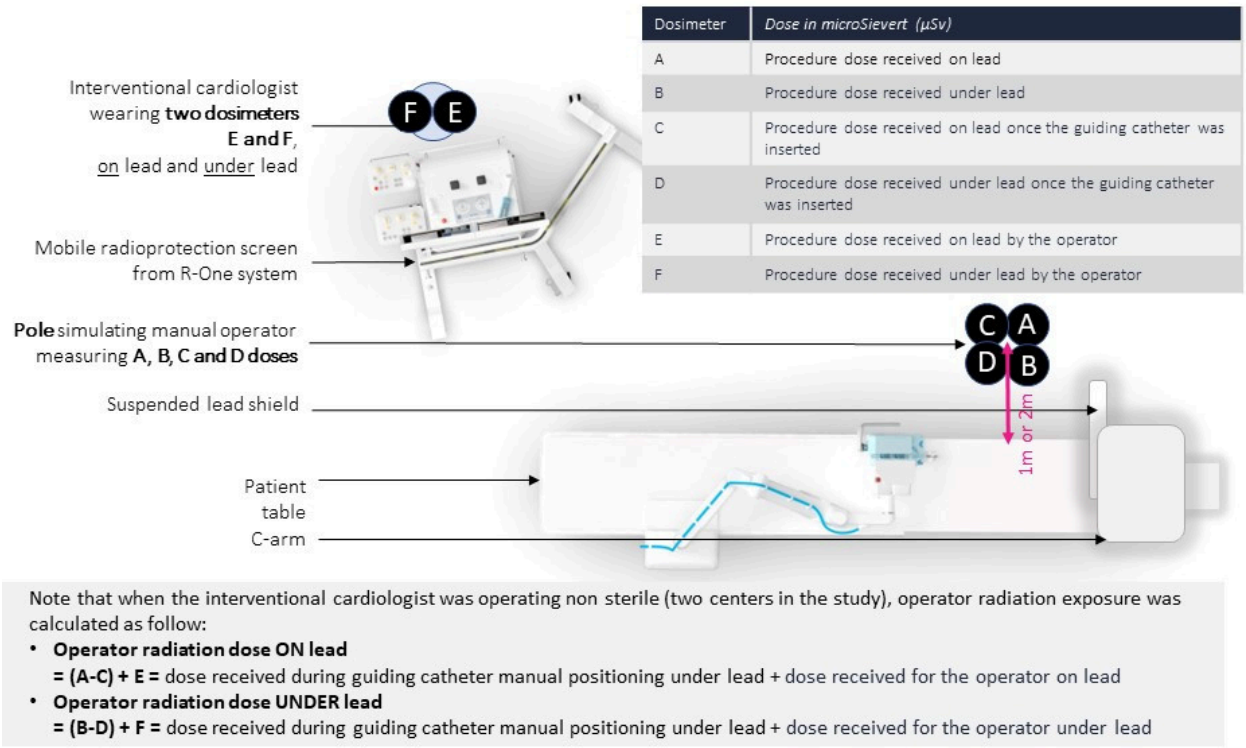
Supplementary data

Supplementary Table 1. Analysis by centre experience level.

Variables	Experience centre (N=34)	Early experience centre (N=28)	p-value
Manual conversion			
Transient	0 (0)	2 (4.2)	0.2
Permanent	0 (0)	3 (10.7)	0.09
Total	0 (0)	5 (17.8)	0.01
Simulated manual operator radiation exposure, µSv			
On lead (procedure)	8.19 ± 8.67	5.97 ± 8.70	0.32
Under lead (procedure)	0.19 ± 0.27	0.27 ± 0.77	0.59
Robotic operator radiation exposure, µSv			
On lead	50.02 ± 58.97	65.52± 63.69	0.33
Under lead	2.95 ± 4.02	3.55 ± 4.31	0.57
Operator radiation exposure reduction, % (95% CI)			
On lead	71.88 (61.91-81.84)	83.37 (74.60-92.14)	0.09
Under lead	83.90 (75.28-92.51)	85.32 (73.89-96.76)	0.84
Robotic contrast volume, mL	85.01 ± 34.8	91.09 ± 37.10	0.54
Procedure contrast volume, mL	129.82 ± 53.85	103.67 ± 25.56	0.03
Robotic duration, min	17.47 ± 8.02	22.23 ± 10.99	0.07
Procedure duration, min	35.50 ± 11 .12	45.25 ± 16.60	0.01

Data are mean ± SD or n (%). CI (confidence interval), mGy (milligray), µSv (microsievert), SD (standard deviation)



Dosimeter	*Dose in microSievert (µSv)*
A	Procedure dose received on lead
B	Procedure dose received under lead
C	Procedure dose received on lead once the guiding catheter was inserted
D	Procedure dose received under lead once the guiding catheter was inserted
E	Procedure dose received on lead by the operator
F	Procedure dose received under lead by the operator

Note that when the interventional cardiologist was operating non sterile (two centers in the study), operator radiation exposure was calculated as follow:

- **Operator radiation dose ON lead**
  = (A-C) + E = dose received during guiding catheter manual positioning under lead + dose received for the operator on lead
- **Operator radiation dose UNDER lead**
  = (B-D) + F = dose received during guiding catheter manual positioning under lead + dose received for the operator under lead

Supplementary Figure 1. Radiation exposure measurements during robotic PCI.

Dosimeters A-D are located on a pole 1–2 meters from the patient table. Dosimeters E and F are located on the robotic-PCI operator seated behind a radioprotection screen at the control station. Dosimeters A and B measure simulated manual operator radiation exposure on top of and underneath a lead apron, respectively, for the entire duration of the procedure. A piece of lead apron is positioned on top of B to represent the wearing of a lead apron. Dosimeters C and D are identical to A and B except they begin measuring radiation exposure after the initial manual insertion of the guide catheter. Dosimeter readings were multiplied by 4 or 16 depending on the distance from the patient. Dosimeters E and F are worn by the robotic-PCI operator on top of and underneath their lead apron, respectively. Radiation doses are measured in microSieverts (µSv).