

Table S3. Component fidelity (right column) is established by counting the total ECMO process components (diagnostics, circuit priming, circuit monitoring, cannulation, gas exchange, hemodynamics, weaning, decannulation, and (clinical) scenarios). The components are included computationally (C), physically (P), or computationally and physically (C+P). A total score out of these 10 possible components determined the classification is low-, mid-, or high-fidelity. Low-fidelity was assigned to ECMO sims when the total ECMO components were ≤ 3 , mid-fidelity was assigned when the total ECMO components was 4 to 7, while high fidelity was assigned when the total amount of ECMO components were ≥ 8 .

Source	Device	Diagnostics (C, P, C+P)	Circuit priming (C, P, C+P)	Circuit monitoring (C, P, C+P)	Cannulation (C, P, C+P)	Connection ECMO / oxygenator (C, P, C+P)	Gas exchange (C, P, C+P)	Hemodynam- ics (C, P, C+P)	Weaning (C, P, C+P)	Decannula- tion (C, P, C+P)	(Clinical) scenarios (C, P, C+P)	Total ECMO process components	Component fidelity (Low-Mid- High)
3-Dmed [1]	ECMO Simu- lation Kit	N/A	N/A	N/A	P	N/A	N/A	N/A	N/A	N/A	N/A	1/10	Low
Allan, <i>et al.</i> [2]	Integrated Skills Trainer	N/A	N/A	N/A	P	P	N/A	P	N/A	N/A	N/A	3/10	Low
Alhomsj, <i>et al.</i> [3]	Modular ECMO simu- lator	C+P	N/A	P	N/A	P	P	P	N/A	N/A	C+P	6/10	Mid
BioMed Simulations [4]	Califia Patient Simulator	C	N/A	P	N/A	P	N/A	C	N/A	N/A	C	5/10	Mid
BioMed Simulations [5]	Califia Lung Simulator	C	N/A	P	N/A	P	C	C	N/A	N/A	C	6/10	Mid
Broman, <i>et al.</i> [6]	Aplysia	N/A	N/A	C	C	N/A	C	C	N/A	N/A	C	5/10	Mid
Chalice [7]	Parallel Simu- lator	C	N/A	C+P	N/A	P	C	C	N/A	N/A	C	6/10	Mid
Colasanti, <i>et al.</i> [8]	Computa- tional ECMO Simulator	C	N/A	C	N/A	N/A	N/A	C	N/A	N/A	C	4/10	Mid
Creaplast [9]	ECMO Trainer Evolution III	N/A	N/A	N/A	P	N/A	N/A	P	N/A	N/A	P	3/10	Low
Curtis Life Re- search [10]	Eigenflow 2 ADVANCED	C	N/A	C	P	N/A	C	C	N/A	N/A	C+P	6/10	Mid
Endo, <i>et al.</i> [11]	Endo Circuit	N/A	N/A	N/A	P	N/A	N/A	N/A	N/A	N/A	N/A	1/10	Low
Erler Zimmer [12]	ECMO Trainer Professional MK2	N/A	N/A	N/A	P	P	N/A	P	N/A	P	C+P	6/10	Mid
Health Care En- gineering Sys- tems Center [13]	ECMO Train- ing Simulator	N/A	N/A	N/A	P	N/A	P	P	N/A	N/A	C+P	4/10	Mid
Lansdowne, <i>et al.</i> [14]	Orpheus per- fusion simula- tor	C+P	N/A	C+P	N/A	P	N/A	C+P	N/A	N/A	C+P	5/10	Mid

Mahmoud, <i>et al.</i> [15]	Cannulation simulator	N/A	N/A	N/A	C+P	P	N/A	N/A	N/A	N/A	N/A	C+P	3/10	Low
Medical Simulator [16]	Hybrids Vita	N/A	N/A	C+P	C	P	C+P	C+P	N/A	N/A	N/A	C+P	6/10	Mid
MSE [17]	Adult ECMO Simulator	C	N/A	C	N/A	N/A	C	C	N/A	N/A	N/A	C	5/10	Mid
Palmer, <i>et al.</i> [18]	Surgical model	N/A	N/A	N/A	P	P	N/A	N/A	N/A	N/A	N/A	N/A	2/10	Low
Palmer, <i>et al.</i> [19]	Percutaneous model	N/A	N/A	N/A	P	P	N/A	N/A	N/A	N/A	N/A	N/A	2/10	Low
Puslecki, <i>et al.</i> [20]	ECMO therapy simulator	C+P	N/A	P	P	P	N/A	C	N/A	N/A	C+P	C+P	7/10	Mid
PVLoops [21]	Harvi ECMO	C	N/A	C	C	N/A	C	C	N/A	N/A	N/A	C	6/10	Mid
Telehealth Research Institute [22]	ECMOjo	C	N/A	C	N/A	N/A	C	C	N/A	N/A	N/A	C	6/10	Mid
Texas Children's Hospital [23]	RediStick ECMO Cannulation Trainer	N/A	P	N/A	P	P	N/A	N/A	N/A	N/A	N/A	N/A	3/10	Low
The Simulator Company [24]	E-Sim Pro	N/A	N/A	N/A	P	P	N/A	C	N/A	N/A	N/A	C	4/10	Mid
Thompson, <i>et al.</i> [25]	ECMO Initiation Simulator	N/A	N/A	N/A	P	P	N/A	N/A	N/A	N/A	C	N/A	2/10	Low
Zanella, <i>et al.</i> [26]	Mathematical ECMO model	C	N/A	C	N/A	N/A	C	C	N/A	N/A	N/A	C	5/10	Mid

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