

# Setting the ALARA Standard

The EggNest™ Complete ERPD System represents the state of the art in achieving ALARA radiation protection and in supporting the full recommendation of *SCAI Expert Consensus Statement on Enhanced Radiation Protection*.<sup>1</sup> Below is a checklist of requirements derived from the SCAI Expert Consensus Statement<sup>1</sup> aligned with supportive, EggNest Complete system features.

SCAI Requirements	EggNest Complete System Supporting Features
1. Provide significant reductions in staff radiation exposure	<ul style="list-style-type: none"> <li>✓ Up to &gt;99% radiation reduction behind operators on either side of patient and up to 97% radiation reduction for all other staff around patient (see Figure 1), as supported by clinical and in-use data<sup>3,4,5,6</sup></li> </ul>
2. Should include high quality clinical research data and assurances of optimal staff utilization	<ul style="list-style-type: none"> <li>✓ Optimal staff utilization is inherent-by-design in this integrated system<sup>3,4,5,6</sup></li> </ul>
3. Use of real-time dosimetry is strongly advised and recommended for providing feedback on effectiveness to support optimal use and staff safety	<ul style="list-style-type: none"> <li>✓ Every system comes standard with real-time dosimetry devices, providing immediate feedback of radiation exposure and assurance of optimal protection<sup>7</sup></li> </ul>
4. Use of reduced-weight or no lead PPE (i.e., aprons) must be based on rigorous, ongoing monitoring for all staff	<ul style="list-style-type: none"> <li>✓ And supports use of ultralight aprons or no aprons<sup>*4,5,6</sup> *As allowed by hospital, state and country regulations</li> </ul>
5. Radiation protection capabilities for total body exposure and all operator positions: Tableside Operators (e.g. Interventionalist, Technologist); Patient Head (e.g. Anesthesia, Nurse, Echocardiographer); Allied Fluoroscopic Team (e.g. Nurses and technologists)	<ul style="list-style-type: none"> <li>✓ Complete team protection 360° around the patient, with above and below table protection (see Figures 1 and 2)<sup>3,4,5,6</sup></li> <li>✓ Allows all staff to receive less radiation exposure than general populations living in higher altitudes<sup>6</sup></li> </ul>
6. Operational functionality and protection of staff without interfering with procedure, including:	<ul style="list-style-type: none"> <li>✓ Inherent-by-design with the integrated system<sup>7</sup> (See Figures 1 &amp; 2):</li> </ul>
(a) No trip or tipping hazards	<ul style="list-style-type: none"> <li>✓ No mobile, floor “shields-on-wheels” to interrupt the freedom of movement around the patient and procedure table</li> </ul>
(b) Vascular access while fully deployed	<ul style="list-style-type: none"> <li>✓ Unimpeded access to patients for continuous monitoring, ongoing assessments and emergent events (i.e. access to patient airway, to perform CPR)</li> </ul>
(c) Allowance of patient assessment and monitoring	
(d) Efficient set-up, procedural adjustment and rapid removal for emergencies	<ul style="list-style-type: none"> <li>✓ Integrated design requires minimal adjustment perioperatively. Allows open access to the patient. Articulating ceiling- or boom-mounted shields move easily in and out of place. Flip shields rotated upwards after the patient is moved to the X-ray table provide shielding around the patient with no further adjustment needed during the case.</li> </ul>
(e) Complete C-arm angulations	<ul style="list-style-type: none"> <li>✓ Patented design allows for EggNest shielding to move with C-Arm while not disrupting procedure. Integrated design allows for free movement of imaging system, and table, negating need for intraprocedural manipulation.</li> </ul>
(f) Unimpeded table motions	
(g) Necessity and ease of intra-procedural shielding manipulations	

The draft *SCAI Expert Consensus Statement on Enhanced Radiation Protection*<sup>1</sup> stresses the importance of taking “mandatory and urgent action” regarding installation of Enhanced Radiation Protection Devices (ERPDs) to meet ALARA standards in protecting all staff working in fluoroscopy laboratories (e.g. cardiac catheterization, electrophysiology, interventional radiology).<sup>1</sup>

Given the state of advanced technology available today, ALARA deficiencies clearly exist with traditional radiation protection methods that solely rely on heavy lead PPE (i.e., aprons) and disruptive mobile shielding. These deficiencies highlight an “ethical and legal” need for immediate adoption of ERPDs<sup>1</sup> and “heralds a new era for comprehensive staff safety.”<sup>6</sup> Furthermore, according to OSHA, “an employer’s radiation protection program may require more stringent personal exposure monitoring for workers who... use equipment or conduct job tasks that produce high levels of radiation (e.g., fluoroscopically-guided heart [cardiac] catheterizations, other fluoroscopically-guided procedures, radiography, industrial radiography).”<sup>2</sup>

Egg Medical provides the ONE and only ERPD system available today that protects ALL staff around the patient with an integrated system that does not require mobile, floor “shielding on wheels” to protect staff, especially around the head of the patient. The EggNest Complete system is inherently designed for optimal staff utilization and procedural functionality—a platform that can be used, and standardized, across different cases and departments. Live dosimetry (provided standard with every system) supports continuous assessment of radiation exposure levels so that ultralight aprons or no aprons for staff can be implemented in a responsible manner. Furthermore, the clinical data demonstrates the effectiveness of the Egg Medical ERPD platform, providing peace of mind to all for the long term.

Figure 1: 360° Team Protection

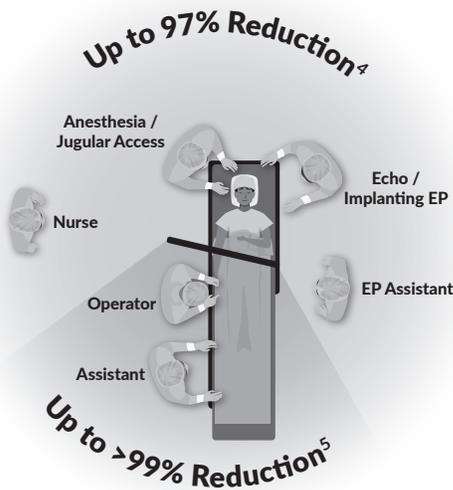
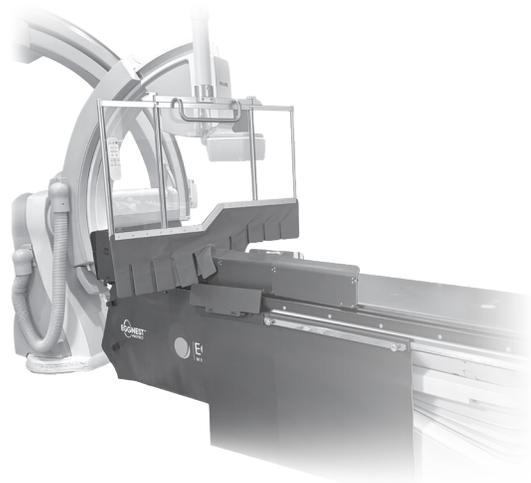


Figure 2: EggNest Complete



ALARA=as low as reasonably achievable; ERPD=enhanced radiation protection device; PPE=personal protective equipment; OSHA=occupational safety and health administration.

**References:** 1. Rizik D, Sutton NR, Alasnag M, et al. SCAI/ASE/HRS/SIR/SVS expert consensus statement on enhanced radiation protection: time for mandatory and urgent action [draft]. *J Soc Cardiovasc Angiogr Interv.* 2025. 2. Occupational Safety and Health Administration. Ionizing radiation: control and prevention. OSHA. Accessed July 15, 2025. <https://www.osha.gov/ionizing-radiation/control-prevention#alara>. 3. Riley RF, et al. Comparative effectiveness of the EggNest Complete shielding system to standard shielding in the cath lab. *JACC Cardiovasc Interv.* 2025;18(4 Suppl). 4. Wilson RF, et al. A new device to markedly reduce cardiac cath lab radiation levels. *J Am Coll Cardiol.* 2018;72(Suppl B):TCT 248. 5. Riley RF, et al. Comparative effectiveness of 2 next-generation scatter radiation shielding systems. *J Soc Cardiovasc Angiogr Interv.* 2025;4(8):103786. 6. Odanovic N, Gonzalez PE, Vora AN. Is Egg ready to leave the nest and fly? *J Soc Cardiovasc Angiogr Interv.* 2025:103863. 7. Data on file.



Egg Medical, Inc.  
2340 County Road C West  
Roseville, MN 55113, USA  
[EggMedical.com](http://EggMedical.com)

© 2025 Egg Medical. All Rights Reserved.  
EggNest is a trademark of Egg Medical, Inc. All other  
trademarks are the property of their respective owners.  
1025.4045