

SIR 2027 Educational Exhibit

Submission Title

Decoding the Interventional Radiology Table: A Visual Curriculum for Device Recognition, Function, and Procedural Role

Educational Track

General IR

Sub-topic

Education and Training

Educational Exhibit Type

Pictorial Essay

Educational Value Statement

Early IR learners must rapidly interpret unfamiliar equipment while learning procedural vocabulary and workflow. Moreover, medical students, residents, technologists, and nurses may acquire device knowledge inconsistently through variable case exposure {1,2}. This exhibit presents a structured visual curriculum that supports equipment orientation and table communication by organizing what learners see into device families, system requirements, and procedural functions.

Introduction

Device recognition is foundational to IR onboarding {3}, but naming tools alone does not explain how they relate to one another or to case progression. This pictorial exhibit frames the procedural table as a functional system, linking visual cues, terminology, measurements, compatibility, and procedural sequence.

Background

Across 163 entries in 18 sections, devices are organized by family and table function, progressing from access and navigation through therapy, specialty workflows, and closure. Orientation pages tailor recognition logic to each device family, emphasizing mechanism, retention design, functional segment, or endpoint while highlighting common beginner pitfalls and table cues. Photographs support table recognition; diagrams clarify configuration, catheter course, deployment mechanics, or geometry.

Educational Content

1. Three-Panel Lens: Visual Recognition, Use and Procedural Context, and Key Distinctions across representative families, identifying device family before product name (2 slides).
2. Reading the device as a system: French size, gauge, wire diameter, working length, functional segments, sheath or guide requirements, and package-based compatibility cues (2 slides).
3. Following procedural progression: access, access preservation, platform establishment, target positioning, primary task, and completion, illustrated through transcatheter vascular and percutaneous drainage pathways (3 slides).

Case Examples

Photographs, diagrams, and procedural images will demonstrate access-platform transitions, catheter geometry, drain retention designs, embolic delivery systems, and covered versus bare-metal stents. Examples across vascular, embolization, drainage, biliary/genitourinary, biopsy, and ablation cases will show how appearance, mechanism, and procedural context distinguish devices.

Key Take-Home Messages

Device fluency is more than memorizing device names: learners should recognize the device family, understand its function, and place it within the procedural sequence. Devices are best interpreted as components of a system, with size, wire platform, access requirements, functional segment, and compatibility considered together. A function-first approach, combined with comparison by defining visual or mechanical distinctions, provides a repeatable framework for understanding an unfamiliar IR table.

References

1. **Goldman DT, Magnowski A, Rochon PJ, et al. The State of Medical Student Teaching of Interventional Radiology: Implications for the Future. J Am Coll Radiol. 2018;15(12):1761-1764. doi:10.1016/j.jacr.2018.07.016.**
 - a. This reference supports the educational gap underlying the submission. Goldman et al. describe variability and limited standardization in medical student exposure to interventional radiology, supporting the rationale for a more structured approach to foundational IR education.
2. **Shaikh M, Shaygi B, Asadi H, et al. The Introduction of an Undergraduate Interventional Radiology (IR) Curriculum: Impact on Medical Student Knowledge and Interest in IR. Cardiovasc Intervent Radiol. 2016;39(4):514-521. doi:10.1007/s00270-015-1215-z.**
 - a. This reference supports the value of structured IR education rather than relying solely on opportunistic learning through clinical exposure. The study demonstrated improvement in medical student knowledge following implementation of a dedicated undergraduate IR curriculum, providing precedent for organized educational interventions in IR.
3. **Northcutt BG, Shah AA, Sheu YR, Carmi L. Wires, Catheters, and More: A Primer for Residents and Fellows Entering Interventional Radiology: Resident and Fellow Education Feature. RadioGraphics. 2015;35(5):1621-1622. doi:10.1148/rg.2015130155.**
 - a. This reference is particularly relevant to the device-focused educational content of the submission. Northcutt et al. describe a primer for trainees entering IR that emphasizes familiarity with common needles, wires, catheters, and sheaths, directly supporting the importance of foundational device recognition, equipment literacy, and communication during IR training.