

# **Radiology in the Era of Value-Based Healthcare**

IS3R Retreat  
November 5, 2020

# Background

IS3R joined ESR, ACR, RSNA, CAR, and RANZCR in 2018 to develop a publication that would cement radiology's role in Value-Based Healthcare

## Participants:

Jackie Bello

Adrian Brady

James Brink\*

Lorenzo Derchi

Stacy Goergen

Gabriel Krestin\*

Michael Fuchsjaeger\*

Emil Lee

David Levin

Josephine Pressacco

Vijay Rao

John Slavotinek

Jacob Visser

Richard Walker

\*IS3R Members

# Radiology and Value-Based Health Care

JAMA October 6, 2020 Volume 324, Number 13

---

**Adrian Brady, MB**

European Society of Radiology, Vienna, Austria; and Mercy University Hospital, Cork, Ireland.

---

**James Brink, MD**

American College of Radiology, Reston, Virginia; International Society for Strategic Studies in Radiology, Vienna, Austria; and Harvard Medical School, Boston, Massachusetts.

---

**John Slavotinek, MB**

Royal Australian and New Zealand College of Radiologists, Sydney, Australia; and Flinders Medical Centre and Flinders University, Adelaide, Australia.

**Because health care usage** and expenditures have continued to increase in most countries, well in excess of cost-of-living inflation, value-based health care has become an increasingly important concept, aimed at improving patient outcomes without increasing costs. The value-based health care model is founded on the effort to encourage adoption of practices that optimize the ratio between health gained and costs incurred and will inevitably lead to greater scrutiny of how resources are deployed and expended.

# Contributions of Radiology to Patient Care

## Disease prevention and detection

- Screening

- Identification of abnormalities accounting for clinical presentations

- Reassurance (eg, confirmation of the absence of disease)

- Radiation protection: optimizing protocols, preventing unnecessary or duplicate studies

## Management contribution

- Diagnosis

- Disease staging

- High-level subspecialist imaging interpretation

- Image-guided biopsy

- Clinical decision support: choosing the best investigation to answer a clinical question, indicating situations in which imaging is likely to represent low-value care

- Confirmation of disease resolution, facilitating treatment cessation

# Contributions of Radiology to Patient Care

Therapy delivery and monitoring

Interventional radiology

Progress evaluation during treatment

Imaging biomarker development: earlier disease detection, treatment response prediction, invasive testing reduction, improvements in targeted treatments, surrogate end points in clinical trials (faster translation of research to clinical practice)<sup>3</sup>

Other

Teleradiologic provision of specialist expertise

Teaching, multidisciplinary team activity, research, administrative work

Communication to patients, the public, and the medical community

# Five Goals

1. The breadth of radiology's contribution to patient wellbeing is well understood by all constituents.
2. As a specialty, Radiology quantifies its effect on patient outcome and quality of life.
3. Referring practitioners are accountable for their effect on the cost of medical imaging and for insuring resource utilization is optimized.
4. Managers who plan and fund healthcare services understand the potential cost of under resourcing radiology services.
5. Radiologists uniformly insure that use of radiologic examinations are justified, appropriate, and evidence based.

# Nine Possible Tactics

Several steps could help support this endeavor, including the following:

1. Engaging with referring clinicians to better understand their practices and needs (eg, turnaround, availability, subspecialty expertise, multidisciplinary input), developing mutual relationships of trust and understanding, and building services to meet these needs without conflict
2. Using evidence-based guidelines to assist referring clinicians in requesting appropriate imaging or interventional procedures specific to the patient's clinical history or condition
3. Ensuring radiology departments work as a cohesive whole (teamwork, consistent standards, and available cross cover; silos, such as subdepartments that exclude integration with other radiologic subspecialties, should not develop to the detriment of other service areas)

# Nine Possible Tactics

4. Using available resources (eg, structured reporting, clinical decision support tools, AI tools) and optimizing workflow to minimize patient waiting times and shorten hospital stays
5. Engaging patients directly to answer their questions and offer explanation of their imaging findings
6. Optimizing information (reports, images) exchange through appropriate information technology tools (eg, urgent report notifications)
7. Maintaining a culture of constant quality monitoring and improvement
8. Having a more active role indicating when a procedure may not be necessary
9. Conducting research on higher-level value contributions

**International Society for Strategic Studies in Radiology**  
**Value-Based Radiology: Strategic Planning Proposal**  
**November 1, 2020**

**Rationale:**

IS3R has participated in a multi-society international effort to promote value-based radiology practice. A *JAMA Viewpoint* article is in press with IS3R represented among several national and continental radiology societies. The article articulates five goals for radiologists to espouse in pursuit of recognition as a value-based specialty. However, the article does not elaborate on precisely what should be done to achieve these goals.

With representative captains of radiology from both academia and industry, IS3R is uniquely positioned to advance a strategic plan for advancing radiology as a value-based specialty. This will be done through a strategic planning and implementation process composed of select members and extraordinary members from industry and professional organizations. IS3R will serve as the convener of large, member professional organizations to execute the implementation plan for the group's strategic vision for value-based radiology.

The strategic planning and implementation planning process will be executed through two virtual retreats. The first retreat will be focused on developing a vivid description of the desired future with a 10-year horizon. Informed by this vision, the group will then review, adapt, and adopt up to five goals to achieve this vision within a 3 to 5-year timeframe. The group may leverage the *JAMA Viewpoint* as a starting point for the vivid description of the desired future and draft goals:

1. The breath of radiology's contribution to patient wellbeing is well understood by all constituents.
2. As a specialty, Radiology quantifies its effect on patient outcome and quality of life.
3. Referring practitioners are accountable for their effect on the cost of medical imaging and for insuring resource utilization is optimized.
4. Managers who plan and fund healthcare services understand the potential cost of under resourcing radiology services.
5. Radiologists uniformly insure that use of radiologic examinations are justified, appropriate, and evidence based.

Once these five goals are reviewed, edited, and adopted, retreat participants will develop up to three objectives for each goal. A second virtual retreat will be held to develop an implementation plan to meet each objective in support of the strategic goals.

## **Retreat 1 – Strategic Planning:**

**Pre-retreat planning:** A writing group composed of the three IS3R members who were members of the multinational VBR consortium (James Brink, Michael Fuchsjager, and Gabriel Krestin) will draft the initial vivid description of the desired future based on prior work. This will be reviewed, edited, and adopted by consent agenda in advance of the retreat. The 5 draft goals from the *JAMA Viewpoint* article will be distributed for the group's consideration and feedback, in preparation for discussion at the retreat

## **Virtual Retreat 1:**

A three-hour virtual retreat will be held with up to 50 participants from academia and industry. The first 30 minutes will be spent reviewing the 5 draft goals from the *JAMA* viewpoint article (see above). Once edited and adopted, the group will be split into up to 5 breakout groups with 10 participants each. These groups will be tasked with developing up to 3 objectives for each goal. Specifically, each breakout group will focus only on one goal for a total of 45 minutes. The group will then reconvene for the last hour and 15 minutes to review each breakout group's recommended draft objectives (15 minutes per group).

**Post-retreat follow-up:** The draft vivid description of the desired future, goals, and objectives will then be made available to the entire IS3R membership for review and adoption.

## **Retreat 2 -- Implementation Planning:**

**Pre-Retreat Planning:** The breakout groups that developed the objectives for each goal will reconvene on-line to propose up to 3 tactics in support of each of the 3 objectives germane to their goal. This will generate 45 tactics which will then need to be prioritized. The draft tactics will be developed online in advance of Retreat 2 by each breakout group.

## Virtual Retreat 2

A second two-hour virtual retreat will be held to develop an implementation plan to meet each objective in support of the strategic goals. Following a 15 minute introduction, each breakout group leader will make a 15 minute presentation to the entire strategic planning team about their recommended tactics in support of the objectives which were adopted to meet each goal. After a discussion period of 30 minutes, each participant will score each proposed tactic (N = 45) according to three variables:

1. Attractiveness/alignment with strategic vision.
2. Likelihood of academia and industry partnerships to achieve the tactic.
3. Uniqueness of the tactic relative to other competing tactics/programs in the medical marketplace.

Following this process, the group will converge on 5-10 recommended tactics that IS3R should suggest to the global radiology community in support of radiology as a value-based specialty. The remaining 35-40 tactics will be held for potential implementation in subsequent phases of the implementation plan.

**Post-retreat follow-up:** Following the retreat, the entire strategic plan, including the prioritized tactics, will be submitted to the retreat participants for final feedback before sending the plan to the IS3R membership for review and adoption.

**Disposition:**

The IS3R Strategic Plan for radiology as a value-based specialty will be published inclusive of the recommended tactics that radiology practices and industry should follow in support of these goals and objectives. Extraordinary members from large professional organizations will be solicited to develop and execute programs that are responsive to the tactics articulated in the implementation plan. IS3R will continue to serve as the orchestrator of these programs, to insure they function synergistically to achieve the strategic goals for value-based radiology.

## VBR Retreat Attendees

IS3R Executive Comm	12
Domain Experts	9
IS3R Staff	1
Corporate Members	12
Professional Societies	
ACR	2
RSNA	2
ESR	2
RANZCR	2
JRS, CRS, KRS	4
Private Foundations	
Bill & Melinda Gates	2
Chan-Zuckerberg	2
Patient Advocates	1
<hr/> Total	<hr/> 50