Case Study: Actionable Steps

IMAGING 3.0™

How one key phrase significantly improved best practices and clinical value.

By Alyssa Martino

Key Takeaways:

- Physicians at RadPartners recognized that referring clinicians were ordering unnecessary imaging follow-up when it wasn't specified as extraneous.
- The team decided to combat this problem by incorporating into their best practice guidelines that radiologists include the phrase "No follow-up imaging is recommended" directly in their reports.
- Since implementation of best practice guidelines created by RadPartners, including the no follow-up statement, adherence to the guidelines has improved by as much as 81 percent.

Several years ago, leaders at Radiology Partners (RadPartners), a multisite radiology practice serving more than 400 hospitals and facilities across the U.S., noticed that referring clinicians often defaulted to ordering follow-up imaging if the radiologist did not specifically state not to do so. "Reviewing thousands of interpretive reports taught us that being silent to the next step frequently resulted in unnecessary follow up of benign or physiologic findings," says Jay A. Bronner, MD, president and chief medical officer at RadPartners. This finding set the practice off on a journey to rein in inappropriate imaging and improve patient care.

According to Jay A. Bronner, MD, radiologists at RadPartners feel personal gratification over the initiative to specify "No follow-up imaging is recommended" directly in their reports.

Resolution

A team of physicians from across RadPartners gathered with a shared interest in making sure they provide the best recommendations for imaging findings. They came to a simple, but forward-thinking conclusion: Why not ask radiologists to specifically state "No follow-up is recommended" in their reports to referring clinicians? Now, this phrase is being added via template or freehand to the "impression" section of imaging reports whenever it's warranted.

Radiology Report

EXAM: Transabdominal pelvic ultrasound
CLINICAL INDICATION: Abnormal uterine bleeding

COMPARISON: Baseline exam, no prior study

FINDINGS:

There is an anteverted uterus measuring 8.1 x 4.7 x 6.6 cm.
The myometrium is homogeneous without obvious focal mass lesion.

There is normal appearing endometrial complex.
The stripe thickness is 14 mm, well within normal limits.
There is no endometrial mass or fluid noted.

There is no obvious pelvic adnexal mass or free fluid.

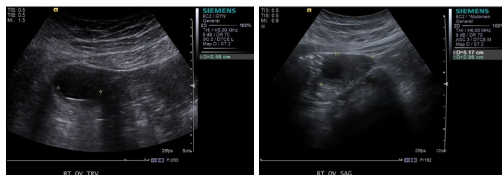
There is a prominent right ovary measuring 5.2 x 2.9 x 4.6 cm.
The ovary contains a single, unilocular hypoechoic lesion measuring 2.6 cm.

The left ovary measures 4.4 x 2.3 x 3.2 cm.
The ovary contains a dominant/physiologic follicle measuring 12 mm.

CONCLUSION:

1. Grossly normal-appearing uterus, endometrium and left ovary.

2. Right ovarian cyst - given patient age and appearance/size of this cystic lesion, it is compatible with dominant follicle and no follow-up imaging recommended.



The team at RadPartners found that referring physicians defaulted to ordering unnecessary imaging unless radiologists specifically stated it was not needed.

As RadPartners began rolling out this concept, however, referring physicians initially pushed back a bit, concerned that radiologists may not have the total picture of the patient's health, Bronner says. This feedback impelled RadPartners to state, "No follow-up imaging is recommended," adding an important keyword concerning their area of expertise. This small change allowed for the big impact of making highly specific recommendations to referring clinicians. "We are consultants just like cardiologists or surgeons," says Bronner. "Sometimes telling your referring physician that no action is necessary is the right thing to do — just as other subspecialists do in the course of evaluating patients."

But what if radiologists specified no follow-up for a benign finding that later developed into a malignancy? RadPartners worked diligently to ensure that the best practices they developed for each area, such as for ovarian cysts and incidental thyroid nodules, were evidence based, providing their radiologists with support to specify no follow-up where appropriate.

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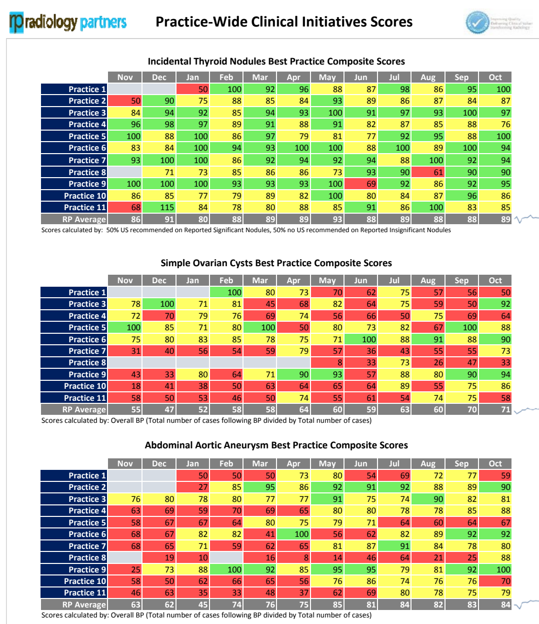
(Read the Imaging 3.0 case study about RadPartners' best practices for incidental thyroid nodules.)

Following these best practices which incorporate recommendations from ACR white papers, Appropriateness Criteria®, and other expert guidelines, greatly reduces the likelihood of liability because the care provided is consistent with well-established, published guidelines and with the standard of care. In addition, patient care is improved and liability is reduced when patients are not exposed to potential complications from unnecessary follow-up procedures, Bronner says.

Results

One factor that surprised Bronner was how quickly a large practice, with locations in multiple states with hundreds of physicians, was able to incorporate internal best practices, including adding "no follow-up imaging is recommended" to their reports. To facilitate adoption, RadPartners created teaching videos about their best practices, and around 90 percent of staff watched the videos.

But the implementation primarily relied on local leadership, says Upma Rawal, MD, a diagnostic radiologist and director of clinical quality at RadPartners who was also integral in setting up this new "No follow-up" procedure. She notes that many physician leaders shared data on their practice's performance at departmental meetings and with their local physician board, and some tied adoption of best



radiology partners

Practice-Wide Clinical Initiatives Scores

Incidental Thyroid Nodules Best Practice Composite Scores

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Practice 1			50	100	92	96	88	87	98	86	95	100
Practice 2	50	90	75	88	85	84	93	89	86	87	84	87
Practice 3	84	94	92	85	94	93	100	91	97	93	100	97
Practice 4	96	98	97	89	91	88	91	82	87	85	88	76
Practice 5	100	88	100	86	97	79	81	77	92	95	88	100
Practice 6	83	84	100	94	93	100	100	88	100	89	100	94
Practice 7	93	100	100	86	92	94	92	94	88	100	92	94
Practice 8		71	73	85	86	86	73	93	90	61	90	90
Practice 9	100	100	100	93	93	93	100	69	92	86	92	95
Practice 10	86	85	77	79	89	82	100	80	84	87	96	86
Practice 11	68	115	84	78	80	88	85	91	86	100	83	85
RP Average	86	91	80	88	89	89	93	88	89	88	88	89

Scores calculated by: 50% US recommended on Reported Significant Nodules, 50% no US recommended on Reported Insignificant Nodules

Simple Ovarian Cysts Best Practice Composite Scores

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Practice 1				100	80	73	70	62	75	57	56	50
Practice 3	78	100	71	81	45	68	82	64	75	59	50	92
Practice 4	72	70	79	76	69	74	56	66	50	75	69	64
Practice 5	100	85	71	80	100	50	80	73	82	67	100	88
Practice 6	75	80	83	85	78	75	71	100	88	91	88	90
Practice 7	31	40	56	54	59	79	57	36	43	55	55	73
Practice 8							8	33	73	26	47	33
Practice 9	43	33	80	64	71	90	93	57	88	80	90	94
Practice 10	18	41	38	50	63	64	65	64	89	55	75	86
Practice 11	58	50	53	46	50	74	55	61	54	74	75	58
RP Average	55	47	52	58	58	64	60	59	63	60	70	71

Scores calculated by: Overall BP (Total number of cases following BP divided by Total number of cases)

Abdominal Aortic Aneurysm Best Practice Composite Scores

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Practice 1			50	50	50	73	80	54	69	72	77	59
Practice 2			27	85	95	86	92	91	92	88	89	90
Practice 3	76	80	78	80	77	77	91	75	74	90	82	81
Practice 4	63	69	59	70	69	65	80	80	78	78	85	88
Practice 5	58	67	67	64	80	75	79	71	64	60	64	67
Practice 6	68	67	82	82	41	100	56	62	82	89	92	92
Practice 7	68	65	71	59	62	65	81	87	91	84	78	80
Practice 8		19	10		16	8	14	46	64	21	25	88
Practice 9	25	73	88	100	92	85	95	95	79	81	92	100
Practice 10	58	50	62	66	65	56	76	86	74	76	76	70
Practice 11	46	63	35	33	48	37	62	69	80	78	75	79
RP Average	63	62	45	74	76	75	85	81	84	82	83	84

Scores calculated by: Overall BP (Total number of cases following BP divided by Total number of cases)

These charts demonstrate clear improvement in adherence to best practices formulated by RadPartners based on ACR white papers and Appropriateness Criteria®.

Upma Rawal, MD, says the buy-in of local leadership to the "no follow-up" initiative was crucial to improving adherence to best practices.

practices, including "no follow-up" statements, into year-end bonuses.

In terms of success, the results truly speak for themselves. Since implementation in 2016, the adherence to best practices for simple ovarian cysts, which started at 4 percent, has increased to 75 percent. For abdominal aortic aneurysm, the practices went from 4 percent to 85 percent adherence. Finally, for incidental thyroid nodules follow-up, they started in 2014 at 50 percent adherence and are now up to 90 percent, meeting their practice goal. "Overall, we have been able to significantly reduce variability in what our radiologists recommend and how they describe that recommendation," Bronner says.

This project also reduced costs, which is critical as many payers are moving to value-based payment systems. "Our practice has already entered into its first contract with a payer in Ohio that rewards the practice with a premium for meeting agreed-upon targets of adherence to our own clinical best practices," Bronner says. Although, he adds, contracting was not their reason for developing best practices. "Mainly, it's the right thing to do for our patients. There's also a lot of personal satisfaction that our physicians gained by doing this."

Next Steps

- Use ACR white papers and other expert guidelines to adopt best practices across various areas like ovarian cysts and incidental thyroid nodules.

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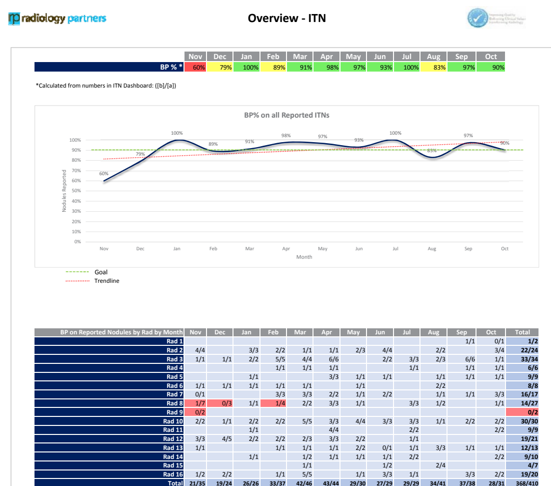

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
BP % *	60%	79%	100%	89%	91%	98%	97%	93%	100%	83%	97%	90%

*Calculated from numbers in ITN Dashboard: ([b]/[a])

BP on Reported Nodules by Rad by Month	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
Rad 1											1/1	0/1	1/2
Rad 2	4/4		3/3	2/2	1/1	1/1	2/3	4/4		2/2		3/4	22/24
Rad 3	1/1	1/1	2/2	5/5	4/4	6/6		2/2	3/3	2/3	6/6	1/1	33/34
Rad 4				1/1	1/1	1/1			1/1		1/1	1/1	6/6
Rad 5			1/1			3/3	1/1	1/1		1/1	1/1	1/1	9/9
Rad 6	1/1	1/1	1/1	1/1	1/1		1/1			2/2			8/8
Rad 7	0/1			3/3	3/3	2/2	1/1	2/2		1/1	1/1	3/3	16/17
Rad 8	1/7	0/3	1/1	1/4	2/2	3/3	1/1		3/3	1/2		1/1	14/27
Rad 9	0/2												0/2
Rad 10	2/2	1/1	2/2	2/2	5/5	3/3	4/4	3/3	3/3	1/1	2/2	2/2	30/30
Rad 11			1/1			4/4			2/2			2/2	9/9
Rad 12	3/3	4/5	2/2	2/2	2/3	3/3	2/2		1/1				19/21
Rad 13	1/1			1/1	1/1	1/1	2/2	0/1	1/1	3/3	1/1	1/1	12/13
Rad 14			1/1		1/2	1/1	1/1	1/1	2/2			2/2	9/10
Rad 15					1/1			1/2		2/4			4/7
Rad 16	1/2	2/2		1/1	5/5		1/1	3/3	1/1		3/3	2/2	19/20
Total	21/35	19/24	26/26	33/37	42/46	43/44	29/30	27/29	29/29	34/41	37/38	28/31	368/410

At a glance, RadPartners can see the adherence of all radiologists to internal best practices, and drill down to gauge individual performance.

- Encourage radiologists to specify when "no follow-up imaging is recommended" directly in their reports, providing training materials and education to increase adoption rates of best practices.
- Track adherence to best practices to identify overall results, including the impact on possible premium payment or value-based care models.

Join the Discussion

Want to join the discussion about how one radiology group reined in inappropriate imaging and improved patient care by adding one simple phrase to their reports? Let us know your thoughts on Twitter at #imaging3.

Have a case study idea you'd like to share with the radiology community? Please submit your idea to http://bit.ly/CaseStudyForm.

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