



Refer Wisely™: Leveraging social media to promote interdisciplinary collaboration on the use of cardiac testing

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The American Society of Nuclear Cardiology (ASNC) has been a longstanding proponent of performing high-quality and high-value cardiac imaging. ASNC was a co-sponsor of the first Appropriate Use Criteria (AUC) document developed by professional cardiology societies, some 14 years ago.¹ In those intervening years, the awareness of low value cardiac imaging has grown among clinicians as well as the public. Despite increased awareness, only a minority of clinicians and patients are aware of campaigns such as Choosing Wisely, and less than 20% of clinicians use AUC on a regular basis.²⁻⁴

In an effort to raise the profile of low-value cardiac imaging, ASNC partnered with primary care doctors and the American College of Physicians to create a new campaign, ReferWisely™.⁵ This interdisciplinary group has built a collection of web-based video resources including a case compendium and discussions on related health care policy. The cases try to explore the AUC in a way that makes them more clinically oriented and relevant at the bedside. Each case includes a description of patient care along with commentary on what might be best for the patient from both cardiology and primary care perspectives. The learning objectives for the cases are succinct: what information does the clinician need to evaluate the patient, what tests, if any, will help provide the information, and how should tests results be used. Topic include pre-operative testing, screening in patients at high-risk of having cardiovascular disease,

stable angina, and noncardiac chest discomfort, among others.

Another product of the ReferWisely™ group is a poster that simplifies management and testing in ischemic heart disease. Printed copies of this poster have been distributed by ASNC staff at multiple national and international professional society meetings, and the poster is reliably a popular item. A digital copy is available for free download and is one of the more popular items accessed on the ASNC website. Key design elements in the poster include a focus on the most common reasons for which nuclear cardiac imaging is used. Readers are guided to appropriateness ratings based on a straightforward binary questions such as “Does the patient have symptoms?” and “Does the patient have known ischemic heart disease?” The poster also provides useful management recommendations that do not involve imaging, such as drugs and doses for angina, how to assess pre-test likelihood of obstructive coronary disease, and estimating cardiovascular risk in asymptomatic patients. Pre-operative risk assessment is also addressed.

Generating this content requires numerous hours of work from a dedicated group of people interested in promoting high-value care. The more substantial challenge, however, is getting the attention of busy clinicians and making it easy for them to engage with this material. To minimize barriers, all the contents are freely available on the web and are also hosted on YouTube. This also means that the content can be found either linked from the ASNC website or can be discovered independently on the YouTube platform. Taking this engagement to the next level, the ReferWisely™ group developed an organized social media campaign to promote the existing content to engaged professionals.

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IMChiefs
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Chest pain does not automatically equal stress/cath. Great advice and tool to use for patients we see in clinic or the ER.

#referwisely #heartdisease @ABIMFoundation #kuim

Refer Wisely Management and Testing of Ischemic Heart Disease

Symptomatic (Sudden worsening of symptoms could represent ACS and should be referred to the ED)

No known IHD

↓

Assess symptoms

↓

Assess exercise capacity

Age (years)	Sex	Typical/Definite Angina Pectoris	Atypical/Probable Angina Pectoris	Nonanginal Chest Pain
<39	Men	Intermediate	Intermediate	Low
	Women	Intermediate	Very Low	Very Low
40-49	Men	High	Intermediate	Intermediate
	Women	Intermediate	Low	Very Low
50-59	Men	High	Intermediate	Intermediate
	Women	Intermediate	Intermediate	Low
>60	Men	High	Intermediate	Intermediate
	Women	High	Intermediate	Intermediate

Low likelihood, can exercise: ETT A, CTA R, MPI R
 Low likelihood, cannot exercise: N/A, M, A
 Intermediate likelihood, can exercise: A, M, A
 Intermediate likelihood, cannot exercise: N/A, A, A
 High likelihood, can exercise: M, M, A
 High likelihood, cannot exercise: N/A, M, A

Known IHD (MI, stent, bypass)

↓

Assess symptoms

↓

Review medical management

↓

Consider antianginals

↓

Known IHD, Symptomatic: ETT M, CTA M, MPI A

Classification of chest pain

- Characteristics
 - Substernal chest pain
 - Brought on by exertion
 - Relieved with rest
- 0 or 1 characteristics = non-cardiac chest pain
- 2 characteristics = atypical chest pain
- 3 characteristics = typical chest pain/angina

IHD medical management

- Aspirin
 - 81 mg daily is adequate
- Statins
 - Rosuvastatin - 20-40 mg
 - Atorvastatin - 40-80 mg
- Beta blockers
 - Not required for all patients
 - Needed if low LVEF (<40% with heart failure) or recent MI
- Blood pressure control
- Glucose control
- Tobacco cessation
- Regular exercise

Antianginal drug management

- Beta blockers
 - Carvedilol - 25 mg bid
 - Metoprolol - 50 mg bid
 - Nitrate - goal dose >60 mg
- Calcium channel blockers
 - Amlodipine - 10 mg daily
 - Side effects: edema
- Nitrate
 - Short acting for acute symptoms
 - Long acting, prescribe ONCE daily
 - Goal dose >60 mg
 - Headache common side effect
- Ranolazine
 - For refractory angina
 - Monitor QT

Choosing Wisely Don't perform cardiac imaging for patients who are at low risk.

Figure 1. Screenshot from Twitter.com. This screenshot is a retweet of the ReferWisely poster from the Internal Medicine Chief Residents at the University of Kansas Medical Center and is an example of engagement with other clinicians through Twitter.

The core of this social media campaign was a month-long effort on Twitter using @MyASNC and accounts from several members of the ReferWisely™ group. A series of tweets were drafted, most of which

highlighted one of the case compendium videos. Other content included interactive polls, key articles in the biomedical literature, and archived continuing medical education content. We sent out one tweet per day and

tracked the impact using third-party vendor metrics for engagement. To keep track of all related content and anything contributed from other social media users, each message included the hashtag #ReferWisely. These tweets generated 15,572 impressions (the number of times the tweets were seen on Twitter) with a potential reach of 96,996 users (the total number of followers of the original poster and the followers of all retweeted content). During the time of the campaign, views of the Youtube videos increased by 14% (from 1211 to 1382 views). The single tweet with the most engagement was the poster which had 1,800 impressions alone (Figure 1).

The primary goal of the ReferWisely™ campaign, similar to the Choosing Wisely campaign, is to raise awareness of best practices among clinicians through an interdisciplinary educational collaboration. Even if all clinicians were well informed about low-value care and rarely appropriate imaging, substantial barriers will still exist. Concerns about professional liability will continue to motivate some clinicians and is not likely to change in the current political landscape. Radiology benefit managers, the Medicare AUC program, and other payer-driven solutions may alter ordering habits, but often amount to little more than frustrations and barriers to reasonable care. Decision support mechanisms built into electronic health records show some promise towards improved ordering habits, although balancing measures of clinician frustrations and potential lost productivity have not been well studied. Data are lacking to demonstrate whether these tools provide any educational value to clinicians who are typically ordering cardiac studies during a busy clinic schedule.

Although many ASNC members and JNC readers have a firm grasp of AUC, we must share in the responsibility for encouraging the use of AUC by our colleagues. Despite the hurdles ahead, ASNC remains committed to facilitating the provision of high-quality and high-value nuclear cardiac imaging and we look forward to your part of that conversation.

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Disclosures

The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States Government. David E. Winchester and David Wolinsky have no relevant conflicts of interest to disclose.

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