Testing the feasibility and acceptability of ‘Everyday SDM’ in primary care: Protocol for a pilot implementation study

Sarah Skurla Dorin, Frances B Schulenberg, Stephanie Visnic, Bradley Youles, Rob Holleman, Jeremy B. Sussman, Tanner J. Caverly

Submitted to: JMIR Research Protocols
on: August 05, 2024

Table of Contents

Testing the feasibility and acceptability of 'Everyday SDM' in primary care: Protocol for a pilot implementation study

Sarah Skurla Dorin[1] MPH; Frances B Schulenberg[1] BS; Stephanie Visnic[1] BA; Bradley Youles[1] MPA; Rob Holleman[1] MS; Jeremy B. Sussman[1, 2] MD, MS; Tanner J. Caverly[2, 1, 3] MD, MPH

[1]Center for Clinical Management Research VA Ann Arbor Healthcare System Ann Arbor US
[2]Department of Internal Medicine University of Michigan Medical School Ann Arbor US
[3]Department of Learning Health Sciences University of Michigan School of Medicine Ann Arbor US

Corresponding Author:
Tanner J. Caverly MD, MPH
Center for Clinical Management Research
VA Ann Arbor Healthcare System
2215 Fuller Road
Ann Arbor
US

Abstract

Background: The 'Everyday Shared Decision Making' approach (ESDM) was developed as a more feasible approach to personalizing decisions in primary care. This approach includes 3 key elements: 1) making a tailored recommendation, 2) qualitatively presenting tradeoffs, and 3) supporting patient decisional autonomy. Previous work found this approach to be acceptable. However, little is known about how the Everyday SDM approach can be integrated within the primary care setting.

Objective: To describe the protocol for a pilot test of the feasibility and acceptability, to both patients and primary care clinicians (PCCs), of using a paper-based deployment of the Everyday SDM approach in the primary care clinic.

Methods: Two case studies were examined: lung cancer screening (LCS) and blood pressure (BP) treatment decisions. This study was a multi-component pilot implementation study involving training PCCs in the Everyday SDM approach and providing them with an encounter-based Decision Aid supporting the Everyday SDM approach during clinic visits. Eligible patients were either candidates for an initial lung cancer screening conversation or a conversation about intensifying blood pressure medication. The patient-PCC medical encounters were audio-recorded. Following the appointment, the patient completed a short survey and semi-structured interview. After PCCs completed 2-3 study appointments, they completed a semi-structured interview reflecting on their experience with the Everyday SDM approach.

Results: We recruited 10 PCCs and 23 patients (4 LCS patients and 19 BP patients). Data analysis is currently ongoing.

Conclusions: The results from this pilot study will contribute to the ongoing efforts towards integrating a practical approach to SDM into primary care. This pilot will lay the groundwork for an effective and efficient larger-scale trial.

(JMIR Preprints 05/08/2024:64998)
DOI: https://doi.org/10.2196/preprints.64998

Original Manuscript

Title: Testing the feasibility and acceptability of 'Everyday SDM' in primary care: Protocol for a pilot implementation study

Authors:
Sarah S. Dorin, MPH[1]
Frances B. Schulenberg, BS[1]
Stephanie Visnic, BA[1]
Bradley Youles, MPA[1]
Rob Holleman, MS[1]
Jeremy B. Sussman, MS, MD[1,3]
Tanner J. Caverly, MPH, MD[1,2,3]

[1] Center for Clinical Management Research, Department of Veterans Affairs, Ann Arbor, MI, United States
[2] Department of Learning Health Sciences, University of Michigan School of Medicine, MI, USA.
[3] Department of Internal Medicine, University of Michigan School of Medicine, MI, USA.

Corresponding Author:
Tanner J. Caverly
2800 Plymouth Rd. Ann Arbor, MI 48104, 16-331W
(734)222-8985
tcaverly@med.umich.edu

Abstract (Max 450 Words):
Background: The 'Everyday Shared Decision Making' approach (ESDM) was developed as a more feasible approach to personalizing decisions in primary care. This approach includes 3 key elements: 1) making a tailored recommendation, 2) qualitatively presenting tradeoffs, and 3) supporting patient decisional autonomy. Previous work found this approach to be acceptable. However, little is known about how the Everyday SDM approach can be integrated within the primary care setting.

Objective: To describe the protocol for a pilot test of the feasibility and acceptability, to both patients and primary care clinicians (PCCs), of using a paper-based deployment of the Everyday SDM approach in the primary care clinic.

Methods: Two case studies were examined: lung cancer screening (LCS) and blood pressure (BP) treatment decisions. This study was a multi-component pilot implementation study involving training PCCs in the Everyday SDM approach and providing them with an encounter-based Decision Aid supporting the Everyday SDM approach during clinic visits. Eligible patients were either candidates for an initial lung cancer screening conversation or a conversation about intensifying blood pressure medication. The patient-PCC medical encounters were audio-recorded. Following the appointment, the patient completed a short survey and semi-structured interview. After PCCs completed 2-3 study appointments, they completed a semi-structured interview reflecting on their experience with the Everyday SDM approach.

Results: We recruited 10 PCCs and 23 patients (4 LCS patients and 19 BP patients). Data analysis is currently ongoing.

Conclusions: The results from this pilot study will contribute to the ongoing efforts towards integrating a practical approach to SDM into primary care. This pilot will lay the groundwork for an effective and efficient larger-scale trial.

Keywords: Shared Decision Making; Lung Cancer Screening; Blood Pressure Treatment; Primary Care

INTRODUCTION

During a routine clinic visit, primary care clinicians (PCCs) often have only 1-2 minutes to discuss a single preventive service.[1,2] While using Shared Decision Making (SDM) to discuss these preventive care options is often promoted in guidelines, current models of SDM typically require at least 5-10 minutes for each decision.[1,2] To address this incongruity between the time available for SDM in primary care and the time needed using current SDM models, we previously developed the 'Everyday SDM' approach.[1] This approach addresses the critical elements of SDM, such as collaborative communication, but is designed to take only 1-2 minutes to complete and be more feasible to implement in the primary care setting. In an Everyday SDM encounter, the PCC focuses on three key elements: (1) Making a tailored recommendation, (2) Briefly presenting qualitative information on key tradeoffs, and (3) Conveying full support for decisional autonomy and desires from the patient for more information.

We have previously found that patients and clinicians who engaged in feedback sessions regarding Everyday SDM felt the 3-step process was an acceptable compromise approach to SDM: "it provided the patient with a more personalized recommendation and supported the patient receiving extra compared to traditional encounters."[2] While the concept of Everyday SDM was appealing to patients and potentially more feasible for clinicians, it is unknown how the Everyday SDM approach can be integrated into appointments within the primary care setting, if it realistically can be completed in 1-2 minutes, and the extent to which patients and clinicians approve of this approach when carried out in actual clinical practice.

Here, we present the protocol for a pilot study testing the feasibility and acceptability, to both patients and clinicians, of using a paper-based deployment of the Everyday SDM approach in the primary care clinic for lung cancer screening (LCS) and blood pressure (BP) treatment decisions.

METHODS

This study was a multi-component pilot implementation study involving clinicians and their patients. The pilot focused on personalizing two decisions through Everyday SDM: (1) how strongly to encourage starting annual low-dose computed tomography (LDCT) LCS for patients meeting current US Preventive Services Task Force (USPSTF) eligibility criteria and (2) how strongly to encourage intensification of BP treatment (i.e., prescribing a BP medication for the first time, adding an additional BP medication to the current regimen, or increasing the dose of current medications) for primary prevention of atherosclerotic cardiovascular disease (ASCVD). Importantly, discouraging LCS or BP treatment for low-benefit or ineligible patients was not part of this pilot. Pilot implementation included a clinician education session on Everyday SDM, an audio-recorded medical encounter between the clinicians and study patients, a post-appointment survey and interview with the patient, and a post-intervention interview with the clinician.

Paper-Based Decision Aid Development

The basis for the intervention was to present the clinicians with a tailored recommendation based on the intervention's individualized net benefit for the patient—and have the clinician engage in Everyday SDM based on this tailored information. To accomplish this, we created a paper-based decision aid to personalize decisions for lung cancer screening and blood pressure treatment based on well-validated prediction models and a previously developed web-based tool

(screenlc.com).[3-9] We generated a personalized paper-based Decision Aid for each study patient which was presented to the PCCs before the appointment and provided personalized patient information to support the use of Everyday SDM. The Decision Aid included each patient's relevant risk information (i.e., for LCS: pack years, quit status, and COPD or emphysema diagnosis; and for BP treatment: HDL, total cholesterol, systolic blood pressure, smoking status, and diabetes). Risk inputs were obtained from the patient's medical records and used to calculate each patient's individualized net benefit for LCS or BP treatment. The tool provided information on how preference-sensitive the decision was for the patient (i.e., the degree to which net benefit depended on how the person weighs the pros and cons) as well as other personalized risk information (e.g., the number needed to screen to avoid 1 death).

Based on each person's calculated individualized net benefit, patients were placed along a spectrum net benefit spectrum that included a Preference-Sensitive zone and an Encourage zone (**Figure 1**). The preference-sensitive zone means the patient is eligible for care, but their risks and benefits are in fine balance so neither strong encouragement nor discouragement is warranted, and a conditional recommendation is best. The Encourage zone, on the other hand, communicates that the net benefit is more clear-cut for the patient due to a high chance of net benefit (i.e., the benefits of receiving the intervention likely outweigh the harms). In this case, PCCs were guided to more strongly to encourage screening or BP treatment. **Table 1** presents the sample 30-second personalized recommendation scripts for patients in the encourage zone vs. the preference sensitive zone. Based on early PCC feedback, scripts were edited and restructured into bullet point format for easier delivery and use during the appointment. Both script versions are noted in **Table 1**. The recommendation scripts were discussed during the Everyday SDM training and provided to PCCs within the paper-based decision aid during the pilot. These scripts outline all aspects of the Everyday SDM approach and are tailored based on the recommendation zone (Preference-Sensitive or Encourage). Based on prior work and recommendations in national guidelines,[10] LCS patients were included in the preference sensitive zone if they had <16.2 days of life-gained gained and the encourage zone if they had ≥16.2 days of life-gained from screening.[10,11] For personalizing decisions about whether to intensify a patient's BP treatment, we categorized patients in the preference-sensitive zones if they had a 10-year ASCVD risk between 7.5-19.9% and in the encourage zone if they had a risk greater than or equal to 20%, based on risk thresholds discussed in national guidelines.[12-14] Examples of the full personalized Decision Aids and further details on how they were created can be found in **Figure 1** and the **Multimedia Appendix 1.**

Clinician Recruitment and Education

We recruited 10 primary care clinicians (PCCs) with at least 50% of their time devoted to ambulatory care from a single VAMC. Purposeful sampling was conducted to ensure representation of genders and a variety of ages. Eligible clinicians were initially asked to participate in the study through email. The recruitment email described the study and included the consent form. If there was no response after initial contact, follow-ups were made through a second email and then Microsoft Teams messaging. Up to 4 contact attempts were made. Once the PCC agreed to participate and electronically signed the consent form, a team member scheduled them for an initial education session.

The initial education session was a 1-hour meeting in which the clinicians first watched a 25-

minute video created by the study team, highlighting the Everyday SDM technique, specific gaps it fills within primary care and preventive care, and how it can specifically be leveraged for LCS and BP patients. The 3 steps of Everyday SDM and how they can be completed were highlighted in the video, providing audio clips and example scripts for going through these 3 steps when initiating an Everyday SDM conversation. The video then concluded with an overview of the study and the various aspects of the study. Following the conclusion of the video, the clinicians were given an opportunity to ask questions and discuss the Everyday SDM approach or the study components with the study team. Once all questions were sufficiently answered and time remained, PCCs participated in a patient scenario activity where they could practice Everyday SDM with hypothetical patient scenarios. These scenarios were also emailed to all participating clinicians prior to seeing their study patients.

Patient Recruitment

We sought to recruit 2-3 patients from each PCC, with a target of at least 1 LCS and at least 1 BP patient. Eligible patients were selected if they had an upcoming primary care appointment and were considered eligible for a “start LCS” or “intensify BP treatment” conversation. Eligibility for the lung cancer screening cohort included patients 50-80 years old with a smoking history of at least 20 pack years. Patients were excluded if they quit smoking over 15 years ago, had ever received lung cancer screening in the past, received a chest CT in the past year, or had been previously diagnosed with lung cancer. Eligibility for the BP cohort included patients aged 45-80 years old with a systolic BP between 130-160. BP patients were excluded for the following reasons: if in the past 5 years they had a documented history of a heart attack or heart disease, loop diuretic use, dementia, metastatic cancer; and if they had zero measures in the past 5 years for HDL, total cholesterol, or blood pressure, or if race was unlisted.

Eligible patients were identified through medical chart review. Every 2 weeks, the research team extracted a cohort of eligible patients with a primary care appointment in the next 2 weeks from the VA Corporate Data Warehouse (CDW). For confidentiality, every eligible patient was assigned a unique patient ID number. These patients were mailed a recruitment letter informing them of the study and inviting them to participate, along with a copy of the consent form. A study team member then called each patient 2-3 days after the study materials were mailed to assess their interest in participating. Up to 3 attempts were made to contact each patient. Patients who agreed to participate were called 1 day before their appointment as a reminder.

Intervention

PCCs were contacted through Microsoft Teams 1-2 days before the appointment, to inform them of the upcoming appointment with a study patient and review a copy of the patient-specific Decision Aid.

Patients were asked to arrive thirty minutes before their scheduled appointment and a study team member met them in the waiting room. The patient’s willingness to participate was confirmed, the components of the study were reviewed (audio-recorded medical encounter, post-encounter survey, and interview) and the patient’s signed informed consent was received. The patient was given a digital voice recorder (DVR) and instructions on its use. Patients were guided to turn on the DVR at the beginning of their appointment. They were also shown how to pause the DVR if they did not want a portion of their appointment to be recorded. Finally, the patient was handed

the paper-based personalized Decision Aid, which they were instructed to give to the nurse at the beginning of the appointment to then be given to their clinician.

During the appointment, PCCs then carried out the Everyday SDM discussion as instructed, based on the information in the patient-specific Decision Aid.

After the appointment, the study team member met the patient in the waiting room and brought them back to a private room within the primary care unit to administer the post-encounter survey and interview. The DVR was returned, and the patient was given a copy of their signed consent form for their records. Patients were given a survey which asked about demographics, general health information, and satisfaction with and general preferences for health care **(See Multimedia Appendix 2 for full survey)**. Questions focused on assessing overall medical trust, the patient-clinician relationship, and blood pressure or lung cancer-specific decision-making during the appointment. After completing the survey, patients participated in a 10–20-minute interview, focusing on the conversation with their PCC. Specifically, the interview asked about how the conversation went, the strength of the clinician's recommendation, and the patient's final decision regarding screening or medication **(See Multimedia Appendix 3 for full interview guide)**. LCS patients were asked to compare their perceptions of the benefits and harms of getting a screening test, share how worried they were about lung cancer, and how helpful they thought screening would be at mitigating this concern. BP patients were asked to compare the benefits and harms of BP medication, how worried they were about heart attacks and strokes, and how helpful BP medication is in reducing this risk. These interviews were audio-recorded. After completing the survey and interview, each patient received a $25 gift card as remuneration for their time.

Clinician Interview

After PCCs completed study visits with 2-3 patients, they were contacted to schedule a 30-minute interview and a short demographic survey **(See Multimedia Appendix 4 and 5 for the survey and full interview guide)**. During these semi-structured interviews, the PCCs were asked to reflect upon using the Everyday SDM approach in primary care. The PCCs were also asked to provide feedback on the sample 30-second Discussion Script, specifically, on the script's language and how strictly they stuck to the script during the intervention. Clinicians were asked how receptive their patients were to this intervention and if they planned to continue using this method of communication moving forward. PCCs were asked to comment on the most significant benefits and harms of lung cancer screening and blood pressure medications and how these benefits and risks compare. PCCs were also asked how worried they are about patients dying from lung cancer without screening and having a heart attack or stroke before starting blood pressure medication. These interviews were audio-recorded. Because the clinicians were VA employees, they were not eligible to receive compensation for participating.

Analysis Plan

The medical encounters, patient interviews, and clinician interviews were all audio recorded and transcribed verbatim. An internal transcriptionist transcribed the patient interviews, while the medical encounters and clinician interviews were transcribed through the Microsoft Teams transcription software. Transcripts will be analyzed through qualitative coding and thematic analysis to identify common themes and patterns among the data related to how patients and

clinicians viewed the acceptability and feasibility of the approach and the clinician's fidelity to the approach. Analysis of the patient and clinician survey data will include basic descriptive statistics. These results will help provide further context to the qualitative analysis and inform if there are demographic or characteristic variations in the data.

RESULTS

Patient and Provider Characteristics

This study was funded in October 2022 by the Department of Veterans Affairs. After obtaining IRB approval for all study protocols and documents, clinician recruitment and enrollment began in July 2023. Patient recruitment then began in October 2023 after recruiting the clinicians and engaging them in the education sessions.

Ten PCCs were recruited and enrolled in this study. Half (n=5) were male, and most (n=8) reported being either White or Asian. Four providers (40%) completed their medical training more than 20 years ago, some (n=3) are relatively new to the VA (<5 years), and most (n=7) work 3-4 days a week in the primary care clinic. Complete provider demographics can be found in **Table 2**.

From the provider panels, 96 patients were identified as eligible for the study, 23 were eligible for a lung cancer screening (LCS) conversation and 73 were eligible for a blood pressure (BP) conversation. Within the LCS eligible cohort, 6 patients agreed to the study over the phone, 14 declined to participate and 3 were unable to be reached via telephone. Of those that agreed, only 4 patients were consented and participated, as 2 were no shows to their appointments. For the BP cohort, 23 patients agreed over the phone and 19 were consented and participated (2 patients were no shows and 2 patients cancelled their appointments). Thirty-six BP eligible patients declined to participate, and 14 were unable to be reached via telephone. Complete recruitment details can be found in **Figure 2**.

Of the 23 total participants, most were male (91%) and White (91%), the mean age was 69 years old, and more than three quarters (76%) completed at least some college. Within the BP cohort, 10 participants were in the preference-sensitive zone (53%) and 9 patients in the encourage zone (47%). All 4 LCS patients were identified in the encourage zone (100%). Complete demographic details can be found in **Table 2**.

Not all providers were able to see an LCS patient. Within the 10 recruited providers, 4 of them (40%) saw 3 total patients (2 BP and 1 LCS). The remaining providers saw either 1 or 2 BP patients and no LCS patients. Full details of the patient distribution by clinician can be found in **Table 3**.

Protocol Challenges

One of the main challenges encountered throughout this protocol was recruitment. A specific challenge was the identification of eligible LCS patients, likely due to long-standing LCS at the site and most patients on these physician's panels already having started LCS. During each 2-week eligibility pull, there were typically 1-3 LCS eligible patients identified, with a high of 6 patients identified in 1 pull. This resulted in a very small pool of potential patients to recruit,

leading to low recruitment numbers and ultimately being unsuccessful in recruiting an LCS patient for every recruited clinician. Additionally, there were several instances when a recruited patient’s appointment was canceled or rescheduled.

DISCUSSION

The results of this pilot study will contribute to the ongoing efforts to integrate a feasible approach to SDM into routine primary care encounters, particularly within the time and resource constraints of an appointment. The Everyday SDM approach aims to address the challenges of incorporating SDM into brief primary care visits where clinicians often have limited time to discuss multiple preventive care options and integrate patient preferences into the decision-making process. While the concept of Everyday SDM is appealing to patients, the findings from this study will assess the feasibility and acceptability, to both patients and clinicians, of integrating it into actual practice.

The findings from this pilot feasibility study also offer insights that will inform the development of the clinician education process, patient identification, and recruitment strategies for larger-scale projects. Through feedback obtained from participating clinicians, we can improve the education session to address specific challenges and enhance clinicians' understanding and confidence in implementing Everyday SDM effectively. Specifically, sending the providers the video before the education session to watch on their own time would help alleviate the time burden and the need to schedule a full hour for an education session. It would also allow the providers time to process the information within the video and come to the session with more thoughtful questions and comments. Additionally, insights gained from patient recruitment and identification strategies, including EHR and targeted patient outreach, can be leveraged to optimize recruitment efforts and assess feasibility for future larger-scale studies, such as engaging the providers in the patient identification process, and adding a second staff member to engage with the patients to reduce scheduling conflicts. By using the results from this pilot to refine clinician education processes and recruitment strategies, larger-scale projects can be better equipped to engage clinicians and patients effectively.

It is important to acknowledge the limitations of the paper-based prototype used in this study. While effective for the purposes of this pilot project, the final goal is to integrate the Decision Aid seamlessly into the electronic health record (EHR). Transitioning to an automated tool within the EHR is important, as relying on paper-based decision aids that are patient-specific and available before clinic visits is unrealistic without research staff support. EHR-integration can support quickly providing personalized information to clinicians based on the patient’s data, within decision support tools that can better fit into the usual EHR-based clinical workflows of modern clinical practice. Future studies will be needed to complete this integration and study the feasibility of carrying out Everyday SDM guided by the support of EHR-integrated decision tools. Though we did examine both cancer screening and cardiovascular prevention topics, the study's focus on LCS and BP treatment decisions may not be generalized to all other preventive care scenarios. Future research can explore the applicability of the Everyday SDM approach across a broader spectrum of preventive care services to assess its versatility and effectiveness in diverse clinical contexts.

In conclusion, the results from this study will show the potential of the Everyday SDM approach to enhance patient-centered care delivery in the primary care setting. If this pilot demonstrates the feasibility and acceptability of Everyday SDM, it will lay the groundwork for further exploration and refinement of this approach to improving patient engagement and personalizing decision-making within the time constraints of primary care.

REFERENCES

1. Caverly TJ, Hayward RA. Dealing with the Lack of Time for Detailed Shared Decision-making in Primary Care: Everyday Shared Decision-making. J Gen Intern Med. 2020 Oct 1;35(10):3045–3049.
2. Caverly TJ, Skurla SE, Robinson CH, Zikmund-Fisher BJ, Hayward RA. The Need for Brevity During Shared Decision Making (SDM) for Cancer Screening: Veterans' Perspectives on an "Everyday SDM" Compromise. MDM Policy & Practice. 2021;6(2). doi:10.1177/23814683211055120
3. Fagerlin A, Caverly TJ. Lung Cancer Screening Risk Calculator. Screenlc.com.
4. Lowery J, Fagerlin A, Larkin AR, Wiener RS, Skurla SE, Caverly TJ. Implementation of a Web-based Tool for Shared Decision-making in Lung Cancer Screening: Mixed Methods Quality Improvement Evaluation. JMIR Hum Factors. 2022;9(2):e32399.
5. Caverly TJ, Wiener RS, Kumbier K, Lowery J, Fagerlin A. Prediction-Augmented Shared Decision Making: Effect on Lung Cancer Screening Uptake. JAMA Netw Open. 2024, (In Press).
6. Kukhareva PV, Li H, Caverly TJ, et al. Implementation of Lung Cancer Screening in Primary Care and Pulmonary Clinics: Pragmatic Clinical Trial of Electronic Health Record-Integrated Everyday Shared Decision-Making Tool and Clinician-Facing Prompts. Chest. 2023;164(5):1325-1338.
7. Kukhareva PV, Li H, Caverly TJ, et al. Lung Cancer Screening Before and After a Multifaceted Electronic Health Record Intervention: A Nonrandomized Controlled Trial. JAMA Netw Open. 2024;7(6):e2415383. doi:10.1001/jamanetworkopen.2024.15383
8. Cheung LC, Berg CD, Castle PE, Katki HA, Chaturvedi AK. Life-Gained–Based Versus Risk-Based Selection of Smokers for Lung Cancer Screening. Ann Intern Med. 2019;171(9):623-632. doi:10.7326/M19-1263
9. Sussman JB, Wiitala WL, Zawistowski M, Hofer TP, Bentley D, Hayward RA. The Veterans Affairs Cardiac Risk Score: Recalibrating the Atherosclerotic Cardiovascular Disease Score for Applied Use. Medical Care. 2017;55(9):864. doi:10.1097/MLR.0000000000000781
10. Mazzone PJ, Silvestri GA, Souter LH, et al. Screening for Lung Cancer: CHEST Guideline and Expert Panel Report. Chest. 2021;160(5):e427-e494.
11. Caverly TJ, Cao P, Hayward RA, Meza R. Identifying Patients for Whom Lung Cancer Screening is Preference-Sensitive: A Microsimulation Study. Ann Intern Med. 2018;169(1):1-9.
12. American College of Cardiology. ASCVD Risk Estimator Plus. 2023. acc.org.
13. Arnett DK, Blumenthal RS, Albert MA, et al. 2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. J Am Coll Cardiol. 2019;74:e177-232.
14. Grundy SM, Stone NJ, Bailey AL, et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults. J Am Coll Cardiol. 2017; DOI:10.1016/j.jacc.2017.11.006

Tables

Table 1. Everyday Shared Decision Making Recommendation Scripts

		Version 1: Narrative	Version 2: Bulleted
LCS	**Preference Sensitive**	"I wanted to talk to you about lung cancer screening. It's something to consider, but for you it's not a clear decision. There's some pros and cons. The big pro is a chance of catching the cancer early and curing it, but there are cons like a risk of false positives, little dots on the CT scan that end up not turning into cancer, leading to more follow-up CTs, with the potential of more risks later on. The good news is you're not at super-high risk…you know it's a little bit of benefit with a little bit of downside and it's really a personal choice between how you feel about those pros and cons. What are your thoughts?"	• I wanted to talk to you about lung cancer screening. It's something to consider; for you it's not a clear decision. There are some pros and cons. The big pro is a chance of catching the cancer early and curing it. • **But** there are also cons like a risk of false positives which are little dots on the CT scan that end up not turning into cancer. This could lead to follow-up CTs. • The good news is you're not at super-high risk; it's a little bit of benefit with a little bit of downside. **So**, it's really a personal choice between how you feel about those pros and cons. • What are your thoughts?
	Encourage	"I wanted to talk to you about lung cancer screening. Due to your high lung cancer risk, I think it's a good idea for you, the benefits are fairly high, you can catch the cancer early, but there are some downsides in that we can find false positives, little dots on the CT scan that end up not turning into cancer. This could lead to follow-up CTs, with the potential of more risks later. But in your case, I think it is worth it because you're still in pretty good health, your risk of lung cancer is pretty high, and so overall, I'd recommend it. What are your thoughts about that?"	• I wanted to talk to you about lung cancer screening. Due to your high lung cancer risk, I think it's a good idea for you. • The benefits are fairly high, you can catch the cancer early. There are also some downsides in that we can find false positives, little dots on the CT scan that end up not turning into cancer. This could lead to follow-up CTs. • But in your case, I think it is worth it because you're still in pretty good health and your risk of lung cancer is pretty high. So overall, I'd recommend it. • What are your thoughts about that?
BP	**Preference Sensitive**	I'd like to talk to you about whether or not we should start an additional blood pressure medicine. I think this is an individual decision that many people may want, and many people may not want. The good news is you have already gotten your blood pressure to where your risk of heart attacks, strokes, and kidney disease is pretty low for your age. But it would be a bit lower with an additional medicine. If you are the type of person that doesn't mind taking another medicine if it will lower my risk of heart attacks, kidney disease, and strokes even a little, I think it is a good thing for you. If you are the type of person that only wants to take another medicine if it is a lot of benefit, I think it would be very reasonable to not and to continue to evaluate and monitor you. What are your thoughts?	• I'd like to talk to you about whether or not we should intensify your blood pressure medicine. • I think this is a personal decision that many people may want to do, and many people may not want to do. • The good news is you have already gotten your blood pressure to where your risk of heart attacks, strokes, and kidney disease is pretty low for your age. • But it would be a bit lower with an additional medicine [or a higher dose of your current medicine]. • So, if you are the type of person that doesn't mind taking another medicine if it will lower your risk of heart attacks, kidney disease, and strokes even a little, I think it is a good thing for you. • If you are the type of person that only wants to take another medicine if it has a lot of benefit, I think it would be very reasonable to continue to monitor your blood pressure instead. • What are your thoughts?
	Encourage	I'm going to recommend an additional medication. The reason is because your risk of heart attacks and strokes has gone up. It is normal for your risk to go up with age. But we have found that by adding this additional medication it decreases your blood pressure more over the course of the day. What your blood pressure is during today in the office is not important, it is what it is when you are around and active. We have found that by decreasing that we can protect your brain, your kidneys, and your heart. I don't push medicines, but we have great evidence that as we get older our risk for these things increases, and we can decrease this so you are low risk for your age. It's just one additional medication, if you have any side effects, which are rare, we can stop it. So I strongly recommend us trying that. What are your thoughts?	• I'm going to recommend we intensify your BP medication. Your risk of heart attacks and strokes has gone up; it is normal for your risk to go up with age. • **But** we have found that additional medication can help because it decreases your blood pressure over the course of the whole day. This helps protect your brain, kidneys, and heart. • What your blood pressure reading is in the office today is not what's most important. What's important is your blood pressure when you are around and active over the course of the day. • It's one additional medication [or a higher dose of a medication]. If you have any side effects, which are rare, we can stop it. **So,** I strongly recommend us trying that. • What are your thoughts?

BP = Blood Pressure
LCS = Lung Cancer Screening

Table 2. Patient and Clinician Demographics

	Total	LCS	BP

Patients			
Total	23	4	19
Gender, n (%)			
Male	21 (91.30)	4 (100)	17 (89.47)
Female	1 (4.35)	0 (0)	1 (5.26)
Missing	1 (4.35)	0 (0)	1 (5.26)
Race, n (%)			
White	21 (91.30)	4 (100)	17 (89.47)
African American	1 (4.35)	0 (0)	1 (5.26)
Missing	1 (4.35)	0 (0)	1 (5.26)
Age, mean (sd)	69 (6.6)	66 (6.5)	70 (6.6)
Education, n (%)			
High school	4 (17.39)	0 (0)	4 (21.05)
Some college/Trade School	10 (43.47)	3 (75)	7 (36.84)
Associate's Degree	4 (17.39)	0 (0)	4 (21.05)
Bachelor's Degree	2 (8.70)	1 (25)	1 (5.26)
Master's Degree or more	2 (8.70)	0 (0)	2 (10.52)
Missing	1 (4.35)	0 (0)	1 (5.26)
Risk Zone, n (%)			
Preference Sensitive	10 (43.47)	0 (0)	10 (52.63)
Encourage	13 (56.53)	4 (100)	9 (47.37)
Clinicians			
Total	10		
Gender, n (%)			
Male	5 (50)		
Female	5 (50)		
Race, n (%)			
White	4 (40)		
African American	0 (0)		
Asian	4 (40)		
Missing	2 (20)		
Hispanic or Latino			
Yes	1 (10)		
No	9 (90)		
How long since completed clinical training, n (%)			
<5 years	2 (20)		
5-10 years ago	2 (20)		
11-19 years ago	2 (20)		
20+ years ago	4 (40)		
How long practicing at the VA			
<5 years	3 (30)		
5-10 years	1 (10)		
11-19 years	6 (60)		
20+ years	0 (0)		
Average days per week working in Primary Care			
1-2 days a week	3 (30)		
3-4 days a week	7 (70)		
5+ days a week	0 (0)		

BP = Blood Pressure; LCS = Lung Cancer Screening

Table 3. Patient Distribution by Clinician

Provider #	LCS pt	BP pt	Total

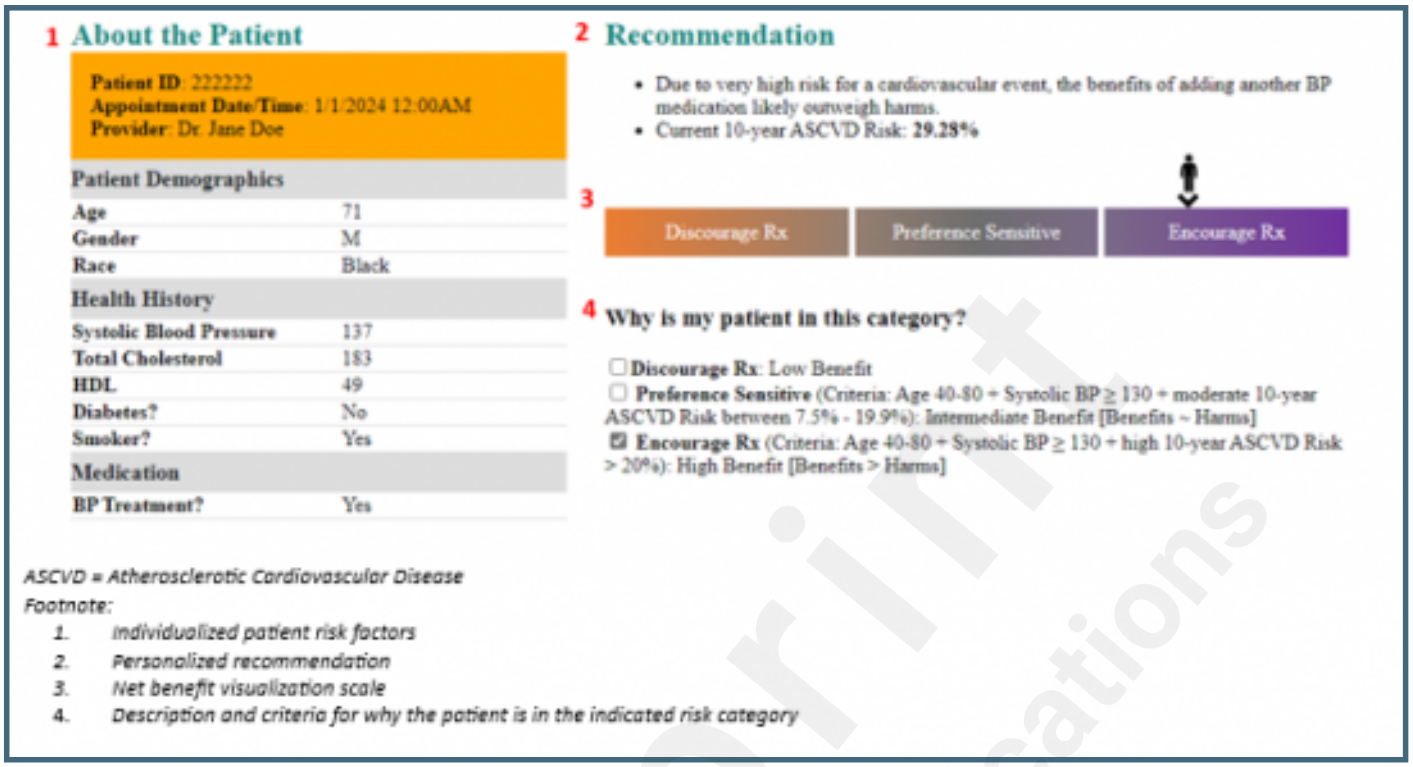
1	1	2	3
2	1	2	3
3	1	2	3
4	1	2	3
5	0	2	2
6	0	2	2
7	0	2	2
8	0	2	2
9	0	2	2
10	0	1	1

BP = Blood Pressure
LCS = Lung Cancer Screening

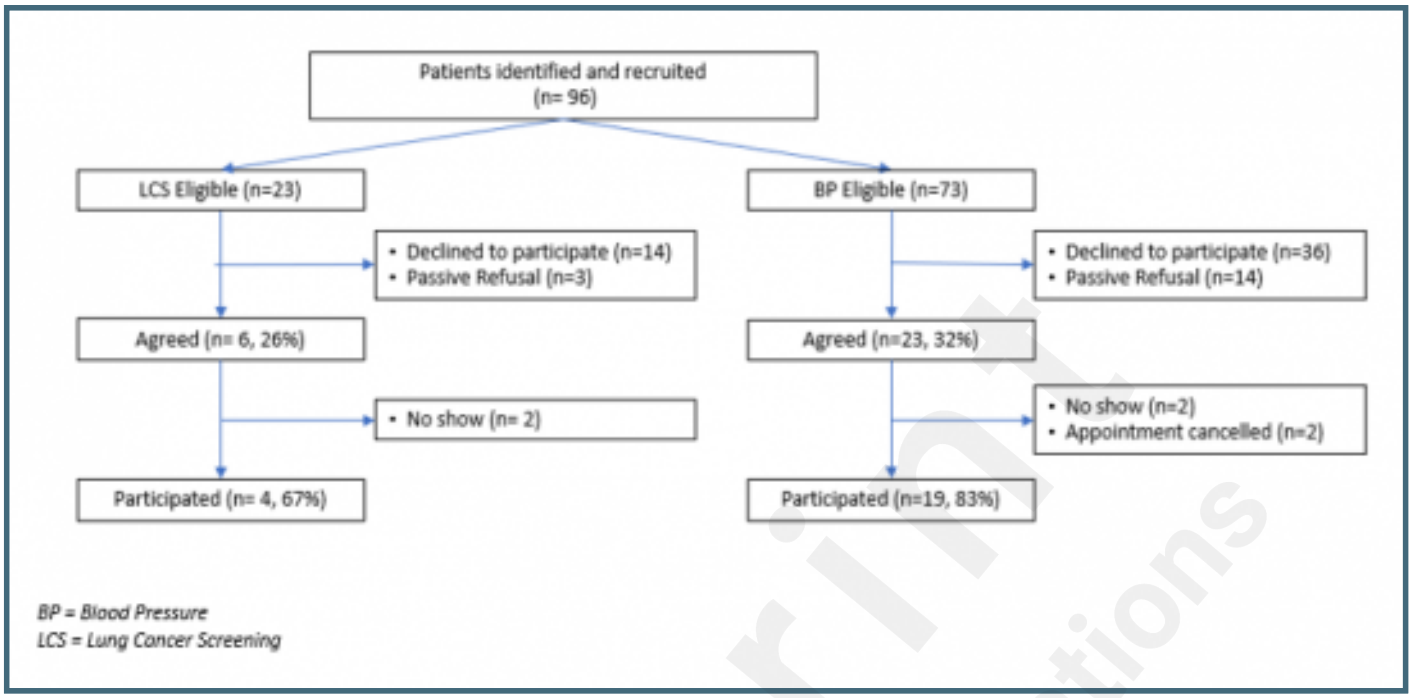
Supplementary Files

Figures

Blood pressure decision aid and net benefit visualization scale example.



Consort diagram.



Multimedia Appendixes

Example lung cancer screening decision aid.
URL: http://asset.jmir.pub/assets/ebe8ceaab928f94a292977510aa4f6f4.docx

Veteran survey.
URL: http://asset.jmir.pub/assets/be63d96f7f153cddce603f2c14b795aa.docx

Veteran interview guide.
URL: http://asset.jmir.pub/assets/75df3ca8db9a17a4003036fd4d23025b.docx

Provider interview guide.
URL: http://asset.jmir.pub/assets/1218319ff3f5e214feb06433457b8f9b.docx

Provider survey.
URL: http://asset.jmir.pub/assets/da8051dbb86cb2b82e4199b62b20b692.docx