Joslin Diabetes Center
Professional Education

Cardiovascular Risk Assessment in People with Rheumatoid Arthritis

Performance Improvement in an Office-Based Practice

FINAL REPORT
April 25, 2015

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Executive Summary

This multispecialty educational and quality improvement initiative was designed for rheumatologists and primary care providers (MDs and NPs) and their clinical and office staff members in an effort to improve rates of cardiovascular risk screening for people with rheumatoid arthritis (RA) who have an increased risk of developing cardiovascular disease.

The intervention began with baseline data measurement of risk factor screening in the population of patients seen by rheumatology providers from Florida Medical Clinic, a single practice network in Tampa, Florida. Baseline data was shared with both the rheumatologists and the primary care providers in the practice at a live CME workshop. Based on these baseline data, as well as a guided self-assessment of office processes in both the rheumatology and primary care offices, physicians assessed performance gaps and reviewed effective strategies to improve screening and system processes. After participating in targeted educational interventions and quality improvement training, the rheumatologists, in coordination with primary care providers, aimed to increase cardiovascular screening rates in people with RA and improve corresponding clinical measures (specifically glycemic control, blood pressure, lipids, and smoking.). A subsequent measurement examining both screening rates and improvement in measurable risk factors was performed to help providers assess their success in meeting their quality improvement goals and identifying areas for continuous quality improvement. The project was done in conjunction with Humedica, a clinical data aggregation and informatics company that works with Florida Medical Clinic on a broader scale. Humedica provided all clinical data used for the practice such that individual chart audits were not required.

Results
The project was successful at educating primary care providers and rheumatologists in this practice on novel methods to address and overcome practice barriers with regards to managing cardiovascular risk in patients with RA. The providers learned how to implement a QI project to address this key issue. However, review of performance and clinical metrics from baseline to the follow up period (about 1 year later) showed only modest (<10%) increase in diabetes and cholesterol screening in patients with RA who did not have diabetes. Diabetes was the most common CAD risk factor not screened for on an annual basis among those without diabetes. Rates of screening of CAD risk factors were high for RA patients with diabetes. The proportion of patients with RA at target for diabetes control, cholesterol and blood pressure did not change much between the baseline and follow up period.

Although the original scope of the project included engaging two practice networks that contained 50 PCPs and 5 Rheumatologists each, we were only able to engage and successfully facilitate one practice—Florida Medical Clinic—through the entire project. We sought to overcome the barrier of aggregate data collection, which required direct involvement of the providers, by using partner informatics company Humedica to provide all data. In the end this actually contributed to limiting the pool of eligible practices, and recruitment of a second practice was not achieved during the allotted timeline.

Project Outline

Target Audience
Rheumatologists and Primary Care Providers and their office staff

Project Goals
- Identify the degree to which CVD risk factors are unmeasured and/or untreated in people with RA in your practices.
- Improve the working relationship between PCPs and Rheumatologists as it relates to co-managing patients with RA.
- Develop PCPs' and rheumatologists' skills to screen for and treat CVD risk factors in people with RA.
- Increase the frequency with which CVD risk factor screening and treatment are performed in people with RA.
- Improve communication and coordination of care between PCPs and rheumatologists around CVD risk factor screening and treatment for people with RA.
- Implement techniques for improved CVD risk factor screening and treatment for people with RA.
- Introduce training tools to improve team-based care.

Learning Objectives
- Describe methods for screening cardiometabolic risk that would be appropriate for use in people with Rheumatoid Arthritis (RA).
- Develop and implement office-based systems for screening for and documentation of cardiometabolic risk factors in RA patients.
- Summarize the role of cardiovascular risk factors in morbidity and mortality in patients with rheumatoid arthritis.
- Identify barriers within the practice and across the consultative care system, to improve timely screening of cardiometabolic risk in people with RA.
- Select goals to improve team-based identification and intervention to treat cardiometabolic risk in people with RA.

Outcomes Hypothesis
The intervention will increase the frequency of complete cardiovascular screening for people with RA (identified by ICD-9 code) over a 6-month period.
- A complete screening will include the factors needed to calculate a modified Framingham risk score: age, gender, smoking status, diabetes status, total cholesterol (TC), HDL cholesterol (HDL-C), LDL cholesterol (LDL-C), blood pressure, and presence or absence of blood pressure medications.
- For the screening to be considered complete, all elements must have been completed within the past 13 months.

Overall Project Milestones and Timeline

Task	Deliverable	Actual Date
Planning and partner engagement meetings	Execute signatures to business agreements. Initiative and develop comprehensive project plan.	Jan-Jul 2013
Enroll selected practices	List of practices and providers	Jul 2013
Collect and analyze pre-intervention (baseline) data	Data summary tables by practice and provider	Aug 2013
Set workshop date(s)	Schedule workshops with practices. Finalize meeting logistics.	Aug 2013
Development of workshop materials, online PI CME module with eMonograph and Joslin CareKit™ materials	Design, develop, produce and launch all PI materials.	Aug-Sep 2013
Host Diamond Workshops	Joslin to conduct workshops specific to each practice/system	Sep 18, 2013
Report on participation, satisfaction and competence of workshop attendees	Outcomes Report: Competence	Oct 2013
Practices implement PI-CME projects	PI-CME plan for each provider or practice	Feb-June 2014
Post-activity survey sent to workshop participants		Omitted
Report on workshop effectiveness	Outcomes Report: Performance	Omitted
Comparison data collection		Jul-Aug 2014
Synthesize and analyze post-intervention data	Pre- and post-intervention data summary tables by practice and provider	Sep-Nov 2014
Development of post-intervention workshop materials	Workshop agenda, slide sets	Nov 2014
Post-intervention workshop(s)	Workshop(s) completed	N/A; Practice leader held internal mtg
Summarize findings of intervention	Final Outcomes Report	Mar 2015
Present findings at internal QI meetings (Humedica and other partners); prepare article for journal submission	Presentation slide sets, article submitted to a peer-reviewed journal	No plans to submit for publication

Project Timeline for the Practice

Task	Time Commitment	Date
Participate in live CME workshop	4 - 5 hours	September 2013
View baseline data report & choose goals	20 minutes	September 2013
Complete 1 CME activity (online)	1 hour	Feb- March 2014

Implement practice improvement plan	(non-additive)	January – March 2014
Review follow-up data report	15 minutes	October 2014
Complete program evaluation	10 minutes	October 2014

Patient Inclusion Criteria & Key Outcome Metrics

Patient Inclusion Criteria
- At least 1 visit with a PCP or rheumatologist with an RA diagnosis in the last year
- AND at least 1 visit with a rheumatologist within the last year
- AND at least 2 total visits with PCP WITHIN the last 18 months
- AND age 18-79 at last visit

Performance Metrics to Assess CVD Risk
- Body Mass Index
- Glucose and fasting glucose levels
- HgLDL, HDL & Total Cholesterol
- Systolic Blood Pressure & Diastolic Blood Pressure
- Smoking status
- A1c

Comorbidity Measures (From ICD 9 Codes)
- Diabetes Mellitus (DM) Dx
- Coronary Artery Disease (CAD) Dx
- Hypertension (HTN) Dx
- Hyperlipidemia (HYPLIP) Dx

Screening Criteria

Diabetes Screen: Any of the following tests done in the last 12 months. If none of these tests were resulted in the chart, it was assumed that the patient was not screened for diabetes during the time period.
- A fasting plasma glucose (FPG) level of 126 mg/dL (7.0 mmol/L) or higher, or
- A 2-hour plasma glucose level of 200 mg/dL (11.1 mmol/L) or higher during a 75-g oral glucose tolerance test (OGTT) or
- A hemoglobin A1c (HbA1c) level of 6.5% of higher

Hyperlipidemia: Total cholesterol measured in the last 12 months
Hypertension: Blood pressure measured in the last 12 months
Obesity: BMI or waist circumference measured in the last 12 months
Smoking: Documentation of smoking status

Florida Medical Clinic Practice Overview

Florida Medical Clinic (FMC) is a multi-specialty practice with 14 office locations in the Tampa area. The Primary Care department consists of 78 providers over all locations: 53 physicians and 25 other clinical staff (PAs, NPs, nurses). There are 4 rheumatologists in the network.

44 members of the Florida Medical Clinic practice attended the live CME Diamond Workshop on September 18, 2013 in Tampa. Evaluation forms were received from 32 participants: 20 physician primary care providers and 3 rheumatologists, along with 9 clinical and office support staff.

A summary of the practice demographics is below.

Provider demographics

Label	Frequency	Percent
MD/DO	23	71.88
Nurse Practitioner	5	15.63
Physician Assistant	1	3.13
Nurse	2	6.25
DPM	0	0.00
Dietitian	0	0.00
Pharmacist	0	0.00
CDE	0	0.00
Other	1	3.13
Total Valid	32	100.00

Medical specialty

Label	Frequency	Percent
Family/General Medicine	15	46.88
Internal Medicine	11	34.38
Rheumatology	4	12.50
Other	2	6.25
Total Valid	32	100.00

Number of years in practice since graduation

Label	Frequency	Percent
< 10	10	31.25
10-20	12	37.50
21-30	8	25.00
> 30	2	6.25
Total Valid	32	100.00

Practice setting

Label	Frequency	Percent
Private office	26	81.25
Inpatient hospital	0	0.00
Outpatient hospital/clinic	3	9.38
Other	2	6.25
Total Valid	31	96.88
Total Missing	1	3.13
Total	32	100.00

Size of current practice

Label	Frequency	Percent
Solo	0	0.00
2-5 physicians	16	50.00
6-10 physicians	4	12.50
> 10 physicians	11	34.38
Total Valid	31	96.88
Total Missing	1	3.13
Total	32	100.00

Providers were primarily internal medicine or family practice doctors who worked in private office settings, in small groups. Most of them have been practicing medicine for at least 10 years.

Providers included in the practice data analysis

Practice-wide data analysis included providers who had at least 10 patients with RA in their panel. Each provider also obtained a report of their own RA patients. *Note: The patient inclusion criteria significantly reduced the number of eligible providers who could be included in the PI study. However, all interested providers were encouraged to attend the diamond workshop and utilize the educational materials.*

	Baseline	Follow Up
Primary Care Providers	16	16
Rheumatologists	4	4
# Patients Reached	309	326

Patient Demographics

Patient data on important clinical measures related to assessment of CV risk in patients with RA in the practice were collected and analyzed at baseline and at follow up. The baseline data was designed to be used by providers to identify gaps in performance and to select goals and develop quality improvement plans based on the gaps. Participants were encouraged to review recommended educational interventions to help them achieve their goals.

RA patients (Managed and shared by 16 PCPs and 4 Rheumatologists)

Demographics	Baseline	Follow Up
Number of patients	309	326
Mean age (yrs)	64.7	64.9
Gender – female/male	F 77% / M 23%	F 76% / M 24%
Average BMI	30.7	30.7

Percent of RA patients with CAD or comorbid conditions that increase risk of CAD

	Baseline N=309	Follow Up N=326
Comorbid Disease	Patients (%)	Patients (%)
Type 2 Diabetes	29%	32%
Coronary Artery Disease	23%	24%
Hypertension	72%	73%
Hyperlipidemia	78%	80%

RA patients in this practice were predominantly middle-aged women. About a quarter of them had coronary artery disease already and a third had diabetes.

Rates of hypertension and hyperlipidemia were very high in this population as well. It is this high prevalence of multiple cardiovascular risk factors that puts them at increased risk for primary and secondary cardiovascular events.

Educational Interventions

Live Diamond Workshop
A 5-hour quality improvement training session was held for the Florida Medical Clinic practice on September 18, 2013 to bring together community-based Rheumatologists, PCPs and their office staff. It was interactive, case-based, and provided the opportunity for practice-systems discussions. Participants were instructed on the steps of Performance Improvement (PI) CME and guided to select goals for the entire practice to work on during the course of the project.

General Session

Time (pm)	Description	Presenter
4:00 – 4:10	**Introduction and Program Objectives**	Sherlyn B. Celone
4:10 – 4:20	**Project Overview – Why Are We Here?**	Ruth Hertzman-Miller, MD, MPH
4:20 – 4:55	**The Relationship Between Arthritis and Cardiovascular Risk**	Yih Chang Lin, MD
4:55 – 5:30	**Cardiometabolic Syndrome and Clinical Challenges: Management in Patients with RA**	Om Ganda, MD
5:30 – 5:45	**Case Presentation**	Ruth Hertzman-Miller, MD, MPH

5:45 – 6:00 Dinner Break in Main Session Room

Breakout Sessions

| Time (pm)	Specialist Room	Primary Care (w/ Office Staff) Room
6:00 – 6:30	**Cardiometabolic Lecture: Risk Stratification and Treatment in RA Patients** *Om Ganda, MD*	**Managing Rheumatoid Arthritis in Primary Care: What You Need to Know** *Helen Bateman, MD*
6:30 – 6:45	**Interpreting Baseline Data:** **Practice Self-Assessment Workshop** *Patricia J. Bonsignore, MS, RN, CDE and Helen Bateman, MD*	**Interpreting Baseline Data:** **Practice Self-Assessment Workshop** *Ruth Hertzman-Miller, MD, MPH and Yih Chang Lin, MD*
6:45 – 7:15	**The Role of the Rheumatologist and PCP in CVD Risk Assessment** (*Case Handout*) *Patricia J. Bonsignore, MS, RN, CDE and Helen Bateman, MD*	**The Role of the Primary Care Physician and The Rheumatologists in CVD Risk Assessment** (*Case Handout*) *Ruth Hertzman-Miller, MD, MPH and Yih Chang Lin, MD*

Workshop *(Main Room - All)*

Time (pm)	Description	Presenter
7:15 – 8:00	**Improving Care Coordination for your Patients with RA: What Works, What Doesn't**	*Leader: Ruth Hertzman-Miller, MD, MPH and all Faculty/ Participants engage*

8:00 – 8:55	**Selecting Practice Goals and Developing Your QI Plan For Managing CV Risk Factors in Patients With RA**	*Sherlyn B. Celone and Patricia J. Bonsignore, MS, RN, CDE*
8:55 – 9:00	**Discussion of Next Steps and Activity Assessment**	*Sherlyn B. Celone*

Interactive E-monograph

Joslin faculty along with other subject matter experts developed an engaging pdf monograph containing elements where learners are able to click and interact within the actual document. The e-monograph focused on the following key topics:

- The relationship between rheumatoid arthritis and cardiovascular risk
- Cardiometabolic risk assessment: An overview of the process
- Rheumatoid Arthritis for the primary care provider: What these clinicians should know about this condition
- How to coordinate care between primary care providers and rheumatologists to optimize cardiometabolic screening
- Interactive Case: A patient with RA without known CVD or previously identified CV risk factors, shared between a primary care provider and a rheumatologic specialist.
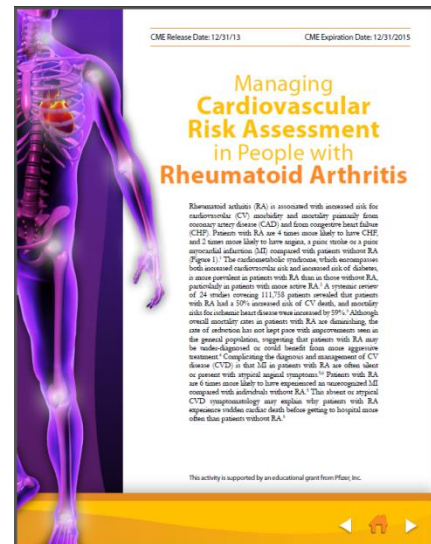
The monograph is included in this report as Appendix 1.

Joslin CareKit™

Tools and resources were developed to support the physician and practice in providing cardiovascular screening for people with RA:

- *Counseling Patients on Reducing Complications of Cardiac Disease in Rheumatoid Arthritis*
- *Counseling Patients with RA about Physical Activity*
- *Counseling Patients with RA about Weight Loss*
- *Monitoring Blood Pressure at Home*
- *Why Lowering Cholesterol is Important*
- *Flow Sheet*
- *Building a Metabolic Syndrome Registry among Patients with RA*
- *Measuring Blood Pressure in Adults*

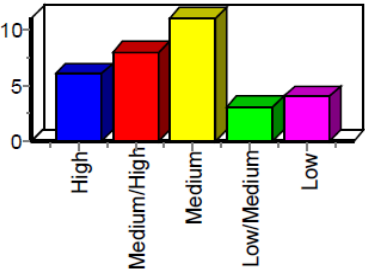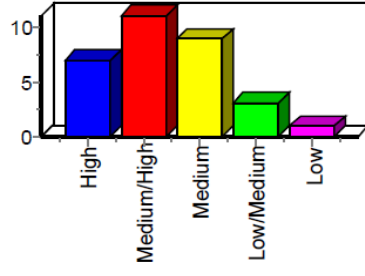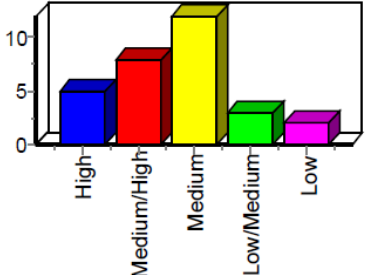## Performance Improvement Coaching

We planned from the outset of the initiative to integrate a role called the 'Practice Champion', to serve as the practice's main point of contact for the project. In addition to facilitating the providers through all stages of the project, the Practice Champion also assisted with further practice recruitment efforts.

The relationship was established by securing the engagement of FMC practice leadership through a series of orientation calls. From that point the Practice Champion was involved in every step of the project, also traveling to Tampa to participate as faculty in the Diamond workshop. She then tracked members of the practice through the educational interventions and invested significant time in sending customized reminders to each provider at each step in the process.

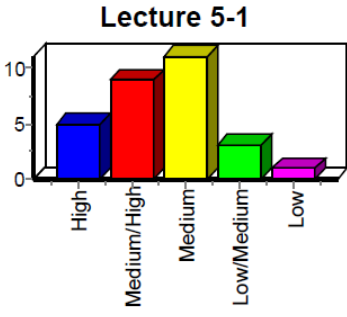## Outcomes

Level 4: Self-Reported Intent-to-Change
Diamond workshop held on September 18, 2013

Lecture 1: The Relationship Between Arthritis And Cardiovascular Risk Your prior knowledge of the topic				
	Label	**Frequency**	**Percent**	**Lecture 1-1**
	High	6	18.75	
	Medium/High	8	25.00	
	Medium	11	34.38	
	Low/Medium	3	9.38	
	Low	4	12.50	
	Total Valid	32	100.00	

Lecture 2: Cardiometabolic Syndrome And Clinical Challenges: Management In Patients With RA Your prior knowledge of the topic				
	Label	**Frequency**	**Percent**	**Lecture 2-1**
	High	7	21.88	
	Medium/High	11	34.38	
	Medium	9	28.13	
	Low/Medium	3	9.38	
	Low	1	3.13	
	Total Valid	31	96.88	
	Total Missing	1	3.13	
	Total	32	100.00	

Lecture 4: Improving Care Coordination For Your Patients With RA: What Works, What Doesn't Your prior knowledge of the topic				
	Label	**Frequency**	**Percent**	**Lecture 4-1**
	High	5	15.63	
	Medium/High	8	25.00	
	Medium	12	37.50	
	Low/Medium	3	9.38	
	Low	2	6.25	
	Total Valid	30	93.75	
	Total Missing	2	6.25	
	Total	32	100.00	

	Lecture 5: Selecting Practice Goals And Developing Your QI Plan For Managing CV Risk In Patients With RA Your prior knowledge of the topic				**Lecture 5-1**
		Label	Frequency	Percent	
		High	5	15.63	
		Medium/High	9	28.13	
		Medium	11	34.38	
		Low/Medium	3	9.38	
		Low	1	3.13	
		Total Valid	29	90.63	
		Total Missing	3	9.38	
		Total	32	100.00	

Lecture 5:
Selecting Practice Goals And Developing Your QI Plan For Managing CV Risk In Patients With RA

Your prior knowledge of the topic

Label	Frequency	Percent
High	5	15.63
Medium/High	9	28.13
Medium	11	34.38
Low/Medium	3	9.38
Low	1	3.13
Total Valid	29	90.63
Total Missing	3	9.38
Total	32	100.00

Lecture 5-1

The content helped to address, overcome or remove barriers to change in your practice

Label	Frequency	Percent
Agree	24	75.00
Somewhat Agree	6	18.75
Neutral	1	3.13
Somewhat Disagree	0	0.00
Disagree	0	0.00
Total Valid	31	96.88
Total Missing	1	3.13
Total	32	100.00

Course Evaluation6
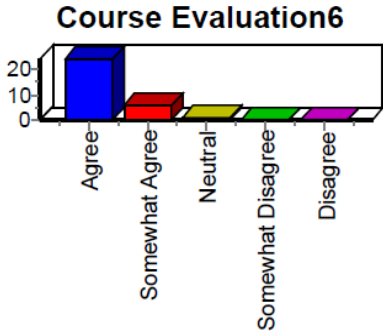
As a result of attending this activity, you will modify some aspect of managing patients with rheumatoid arthritis

Label	Frequency	Percent
Agree	26	81.25
Somewhat Agree	3	9.38
Neutral	1	3.13
Somewhat Disagree	0	0.00
Disagree	0	0.00
Total Valid	30	93.75
Total Missing	2	6.25
Total	32	100.00

Course Evaluation11

	Label	Frequency	Percent
If you do plan to modify patient management as a result of attending this activity, which aspects of your practice do you intend to change?	Apply more effective methods for screening cardiometabolic risk that would be appropriate for use in people with Rheumatoid Arthritis {RA}	21	65.63
	Develop and implement more efficient office-based systems for screening for and documentation of cardiometabolic risk factors in RA patients	18	56.25
	More effectively identify barriers within the practice and across the consultative care system for timely screening of cardiometabolic risk in people with RS	13	40.63
	Improve team-based identification and intervention to treat cardiometabolic risk in people with RA	17	53.13
	Other	2	6.25
	Total Valid	30	93.75
	Total Missing	2	6.25
	Total	32	100.00

Only about 50% of participants reported medium-high to high prior knowledge about the relationship between arthritis and cardiovascular risk and how to manage cardiovascular risk in patients with RA. Even fewer had superior knowledge about effective methods to improve care coordination for RA patients and how to select practice goals and develop a QI plan for managing CV risk in patients with RA. Most of the participants reported that attending the activity helped to address, overcome or remove barriers to change in their practice. Most of them identified specific areas where they planned to make modifications. They felt that the clinical topics were very relevant to their practice and were highly satisfied with the quality of the lectures, case presentations and breakout sections. The entire evaluation from the diamond workshop can be reviewed as Appendix 2.

Quality Improvement Goals and Issues Discussed

Goal	Problems	Solutions
BP	Adherence -- meds	More f/u visits
		Blood pressure log sheets for home
		RN follow-up calls
	Identifying high-risk patients (2)	Specialist document "high CVD risk"
		put Framingham score in chart
	Specialist not addressing BP	BP benchmark at which Rheum. Schedules PCP visit (specify time frame)
		Specialist add "PCP visit for BP" to patient instructions
		Specialist document BP goals
		Specialist document action needed
		Flow sheet with CVD screening/counseling items
	Suboptimal medication management	Establish clear goals (for all pts. vs. for individual pts.)

	Lifestyle	Diet counseling/handouts
		DASH diet -- tracking in chart
		DASH diet -- handouts
		Diet counseling (hire nutritionist? Identify local resources, e.g. grocery?)
		PCP/specialist agree on common recommendation (e.g., diet)
LDL	Specialist not ordering	Coordinate lab evaluation (LDL and A1C)
		Flow sheet with CVD screening/counseling items
	Not at goal and no changes made	Schedule PCP appointment; counsel patient on reason for appt
		Use flow sheet
		Establish clear goals (for all pts. vs. for individual pts.)
	No lifestyle coaching	Patient education
	Medication intolerance	Patient education
		Provider education (try different meds)
Other/General	Difficult to get patient into Rheum	
	No distinction made between urgent and routine referrals	Talk to primary care staff
	Notes not available?	
	Notes not being read	Highlight risk assessment in its own note section
		Sticky note on chart
	Notes do not contain needed information re: risk assessment and patient risk counseling	Highlight risk assessment in its own note section
	Incorrect Dx on scheduled referral	Talk to primary care staff

During the breakout session of the Diamond Workshop, the FMC providers identified and discussed issues that may be barriers to achieving both the screening and clinical goals for CV risk factors in their patients. These issues were a mix of patient-focused (lack of adherence or medication intolerance), skill-based (identifying high-risk patients, suboptimal management or clinical inertia, lack of lifestyle coaching) and also system-related (notes not containing needed information, triaging referrals). The practice also brainstormed solutions to the identified issues. The Practice Champion coached the participants of the Diamond Workshop on how to create a Continuous Quality Improvement (CQI) plan and everyone left the session with the template to create their own CQI plan.

Note: We did not follow up with the individual providers on their CQI plans so do not know how many took advantage of the worksheet to create a structured plan.

Level 5: Performance

Performance data was provided for the eligible practice group as well as for each individual provider. Aggregate practice data results are shown below.

The performance outcome measure was the rate of complete screening for CVD risk factors in patients with RA: Proportion of patients screened for diabetes, hypertension, hyperlipidemia with measure of obesity (BMI or waist circumference) and smoking status documented at baseline and at follow up.

Screening for CVD risk factors – RA Patients <u>without</u> DM

CVD risk factor (% screened)	Baseline N=218	Follow up N=221
DM screen (A1C or FBG or OGTT)	19	22
Dyslipidemia screen	78.5	89.1
Smoking status documented	100	100
% Current smokers	14.6	12.6
Obesity assessment	100	100
Blood pressure screen	100	100

Screening rates for most CVD risk factors improved from baseline to follow up, as there were fewer patients with missing data. There was excellent screening for BP, BMI and smoking status both at baseline and follow up. Screening rates for diabetes were lowest at both baseline and follow up. Random blood glucose was the most common glucose test performed (This alone is not highly sensitive or specific for diagnosing diabetes). There was a small decrease in smoking rates.

Screening for CVD risk factors – RA Patients <u>with</u> DM

CVD risk factor (% screened)	Baseline N=91	Follow up N=105
DM screen (A1C)	86.7	86.8
Dyslipidemia screen	92	94
Smoking status documented	100	100
% Current smokers	9.8	9.5
Obesity assessment	100	100
Blood pressure screen	100	100

Once again this patient population had excellent rates of CVD screening and much higher rates of A1C testing , likely because they already have diabetes. The screening goals for BP and cholesterol are different for those with and without diabetes; segmenting the baseline data shows achievement of more aggressive cholesterol screening, which is good since diabetes patients have higher rates of CVD than patients without diabetes.

Level 6: Patient Outcomes

CVD risk factors – RA Patients <u>without</u> DM

CVD risk factor[1]	Baseline N=218	Follow up N=221	Absolute Change (%)	% Change
TCHOL < 200	51%	56%	+5	+10%
LDL < 160	77%	77%	-	0%
HDL >50 F, >40 M	59%	65%	+6	+10%
BP < 140/90	80%	85%	+5	+6%

Patients without diabetes achieved modest improvements in blood pressure control and management of dyslipidemia from baseline to follow up.

CVD risk factors – RA Patients <u>with</u> DM

CVD risk factor[1]	Baseline N=91	Follow up N=105	Absolute Change (%)	% Change
A1C < 7%	61%	58%	-3	-5%
TCHOL < 200	67%	61%	-6	-9%
LDL < 100	56%	48%	-8	-14%
HDL >50 F, >40 M	57%	67%	+10	+18%
BP < 140/80	60%	61%	+1	+2%

The proportion of patients with diabetes that achieved target goal for HDL increased for both men and women from baseline to follow up while patients at goal LDL and total cholesterol decreased slightly. The proportions remained relatively similar from baseline to follow up for A1C at goal and blood pressure at goal.

Final Recommendations to the Practice

- Continue to work to increase screening rates of all CVD risk factors to 100%.
- Diabetes screening is important in this patient population because of their increased risk for CVD and greater likelihood of exposure to medications that antagonize insulin action and increase insulin resistance like steroids.
- Continue aggressive CVD risk factor modification in this subpopulation with RA and diabetes, as they are at significantly increased risk for CVD.
- Utilize tools from this educational intervention to develop specific QI projects in the future.

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[1] Targets derived from American Diabetes Association. Standards of Medical Care in Diabetes—2013. *Diabetes Care.* 2013; 36(Suppl 1):S11-S66 and James PA et al. 2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults. *JAMA*. 2014;311(5):507-520.

Conclusions

Overall, the project did not demonstrate much improvement in screening rates as expected, since screening rates of most of the CVD risk factors were quite high at baseline. This project did help providers identify that they were not screening for diabetes adequately. We also did not see much change in patient outcomes data from baseline to follow up, likely due to the fact that the educational interventions did not specifically address management strategies for CVD risk factors. The providers may benefit from targeted educational activities in this area to help improve their patient-level outcomes.

In addition, we evaluated the physicians in the FMC practice who did <u>not</u> attend the diamond workshop and who did not utilize the resources/e-monograph. The Level 5 and 6 data for these clinicians were very similar to the group that did participate in the initiative:

		Count & Averages		% of Population			
	Summary	Baseline	Update	Baseline	Update	Change	Standard
Demographics	# of Patients	386	387				
	Average Age	62.70	62.65				
	# of Females	328	323	85%	83%		
	# of Males	57	63	15%	16%		
	Average BMI	31.33	31.31				
Diagnoses	# of Type2 Diabetes Pts	102	111	26%	29%		
	# of CAD Pts	65	78	17%	20%		
	# of HTN Pts	237	256	61%	66%		
	# of Hyperlipidemia Pts	239	260	62%	67%		
Cardiovascular Risk Screening	# of Diabetic Patients with all risk factors measured	81	90	79%	81%	2%	*100%*
	# of Non Diabetic Patients with all risk factors measured	187	195	66%	71%	5%	*100%*
	# of Non Diabetic Patients with all risk factors measured except DM screen	190	200	67%	72%	6%	*100%*
Diabetes Screening	# of Pts (non-diabetic) with one measurement of A1C, Facting glucose or OGTT	48	55	17%	20%	3%	*100%*
Risk Factors (Pts with Diabetes)	# of Pts DM Glucose at Goal	56	65	55%	59%	4%	*60%*
	# of Pts DM LDL at Goal	46	57	45%	51%	6%	*70%*
	# of Pts DM HDL at Goal	40	58	39%	52%	13%	
	# of Pts DM Total Cholesteral at Goal	61	76	60%	68%	9%	*70%*
	# of Pts DM BP at Goal	70	73	69%	66%	-3%	*60%*
	# of Pts DM SMOKING_STATUS Captured	102	111	100%	100%	0%	*100%*
	# of Pts DM SMOKING_STATUS Current	88	98	86%	88%	2%	
Risk Factors (Pts without Diabetes)	# of Pts Non DM LDL at Goal	171	177	60%	64%	4%	*70%*
	# of Pts Non DM HDL at Goal	150	156	53%	57%	4%	
	# of Pts Non DM Total Cholesteral at Goal	108	110	38%	40%	2%	*70%*
	# of Pts Non DM BP at Goal	224	218	79%	79%	0%	*70%*
	# of Pts Non DM SMOKING_STATUS Captured	284	276	100%	100%	0%	*100%*
	# of Pts Non DM SMOKING_STATUS Current	223	231	79%	84%	5%	
	Sum of DM Total Cholesteral Captured	87	96	85%	86%		
	Sum of Non DM Total Cholesteral Captured	190	213	67%	77%		

Therefore we conclude that the initiative overall was a negative study. This result could be for several reasons. First, there was only one practice in the study, and they happened to be quite advanced in their screening practices. A second practice may have elicited different results. Second, since the practice was already engaged with Humedica to aggregate and report on their data, it could be a selection bias. One could surmise that any practice that engages with a clinical informatics company is already in the position to be very focused on quality improvement and would regularly evaluate their performance on common metrics, especially for chronic conditions such as cardiovascular disease. Third, FMC may not be representative of most practices because they do have more Rheumatologists and therefore may already have more integrated processes and communications between the Rheumatologists and the PCPs.

Challenges Experienced

The duration of the project was 1 year and 8 months. During this time we experienced several challenges, as we embarked on the detailed project plan and started the engagement with all stakeholders.

1. ***Engagement and Retention of Partner Practices***. In the original proposal we had listed several practices, including Beth Israel Deaconess Medical Center, who had initially agreed to endorse the project and encourage their providers to participate. Upon grant award when we re-engaged with these practices they withdrew from participating in the project, citing reasons such as competing internal priorities, suboptimal timing due to participation in other Joslin projects, or changes in leadership since the previous conversations. In addition, for other practices in the Humedica network, most did not have enough PCPs or rheumatologists in the network to qualify to participate under the original study design. To compensate for this change in direction, we explored using other data partners such as the Massachusetts eHealth Collaborative, but eventually determined that their typical practice profile was also not a match to the project. Finally, in July 2013 we were successful in engaging Florida Medical Clinic via Humedica. We continued recruitment efforts for a second practice in parallel but were never able to engage any others to participate.

2. ***Scope Change***. It was originally proposed that we would apply our Joslin Clinical Audit Tool (JCAT) on the data collected. Once we received the baseline data we realized it was not in the required format to run the JCAT analysis. The way in which Humedica collects practice data is not compatible with the format that we have created to run the JCAT algorithms. This was not realized until the baseline data file was delivered. Consequently, the only way that the JCAT tool could have been utilized would have been from manual chart pulls of 60 patients per provider. This was clearly not feasible from both a time commitment and a budgetary standpoint. More importantly, most providers had fewer than 60 patients with RA in their panels. Therefore, JCAT analysis was omitted from the final project scope.

3. ***Team Changes***. During the course of the project our internal team experienced some attrition and personnel changes, which affected the continuity of project management and contributed to an overall delay in the completion of the project.

Patient Impact

Despite only modest Level 5 and Level 6 improvements, we believe that the increased provider awareness of elevated CVD risk for RA patients in this practice will ultimately lead to more intensive CVD screening and management and hopefully reduce CVD complications.

Appendix 1: Interactive e-Monograph

Appendix 2: Diamond Workshop Full Evaluation

Managing Cardiovascular Risk Assessment in People with Rheumatoid Arthritis

September 18, 2013

What is your professional credential?

Label	Frequency	Percent	Valid Percent
MD/DO	23	71.88	71.88
Nurse Practitioner	5	15.63	15.63
Physician Assistant	1	3.13	3.13
Nurse	2	6.25	6.25
DPM	0	0.00	0.00
Dietitian	0	0.00	0.00
Pharmacist	0	0.00	0.00
CDE	0	0.00	0.00
Other	1	3.13	3.13
Total Valid	32	100.00	100.00

Professional Credential
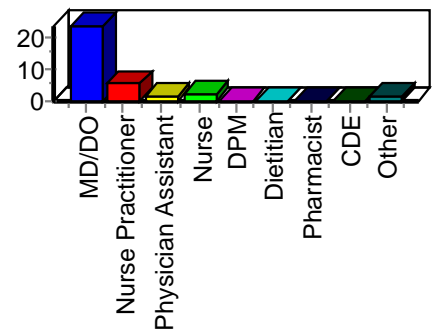
What is your area of practice specialty?

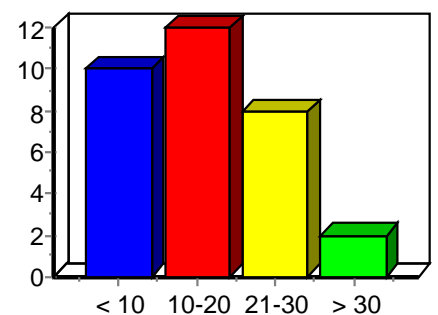| Label	Frequency	Percent	Valid Percent
Family/General Medicine	15	46.88	46.88
Internal Medicine	11	34.38	34.38
Rheumatology	4	12.50	12.50
Other	2	6.25	6.25
Total Valid	32	100.00	100.00

Specialty
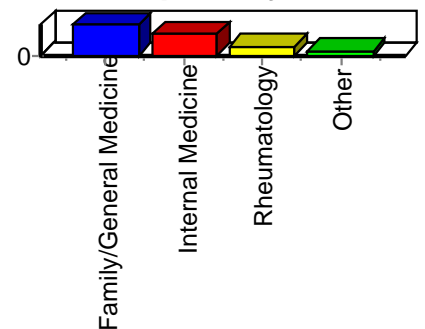
## How many years have you been in practice (years since graduation)?

Label	Frequency	Percent	Valid Percent
< 10	10	31.25	31.25
10-20	12	37.50	37.50
21-30	8	25.00	25.00
> 30	2	6.25	6.25
Total Valid	32	100.00	100.00

Years in Practice

In which setting do you perform most of your patient care?

Label	Frequency	Percent	Valid Percent
Private office	26	81.25	83.87
Inpatient hospital	0	0.00	0.00
Outpatient hospital/clinic	3	9.38	9.68
Other	2	6.25	6.45
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	

Setting
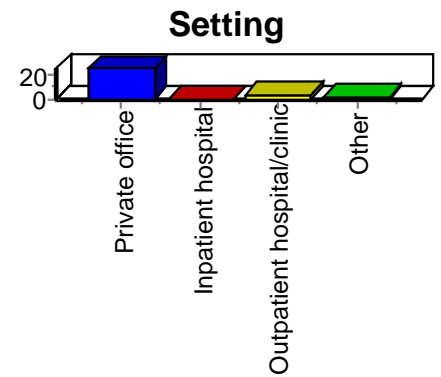
What is the size of your practice?

Label	Frequency	Percent	Valid Percent
Solo	0	0.00	0.00
2-5 physicians	16	50.00	51.61
6-10 physicians	4	12.50	12.90
> 10 physicians	11	34.38	35.48
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	

Size of Practice
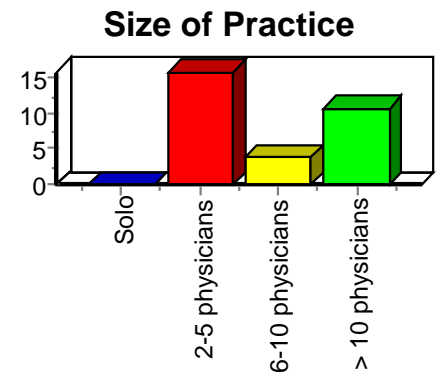
Approximately how many patients with diabetes do you typically see in a week?

Label	Frequency	Percent	Valid Percent
0-10	24	75.00	80.00
11-20	2	6.25	6.67
21-30	0	0.00	0.00
> 30	4	12.50	13.33
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

How Many Patients
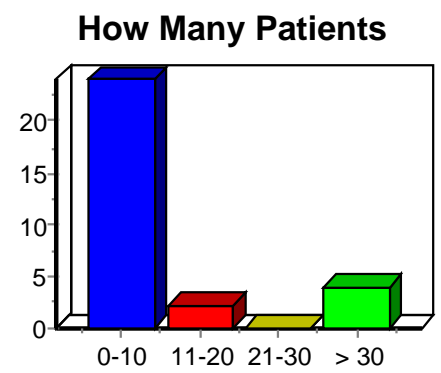
How did you hear about this activity?

Label	Frequency	Percent	Valid Percent
Mail	0	0.00	0.00
Colleague	18	56.25	58.06
Website	0	0.00	0.00
Email	6	18.75	19.35
Other	9	28.13	29.03
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	

Hear About Activity
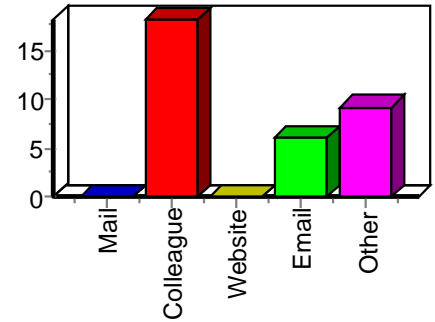
Why did you select this activity?

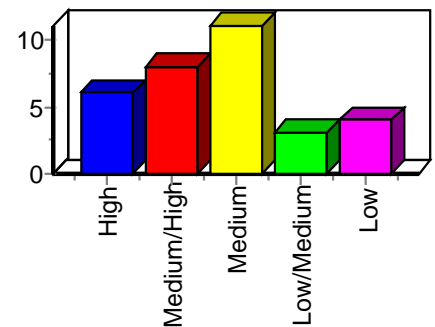| Label	Frequency	Percent	Valid Percent
Activity content	19	59.38	63.33
CME credit	15	46.88	50.00
It was a Joslin Diabetes Center activity	6	18.75	20.00
Time and date	1	3.13	3.33
Faculty	1	3.13	3.33
Location	2	6.25	6.67
Other	4	12.50	13.33
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Choose Activity
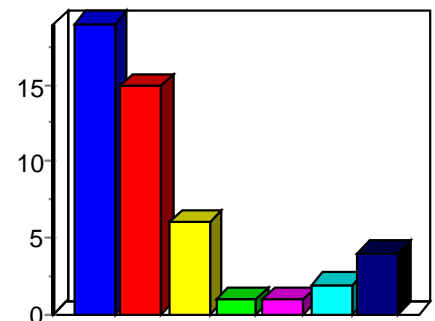
Lecture 1: The Relationship between Arthritis and Cardiovascular Risk - Your prior knowledge of topic:

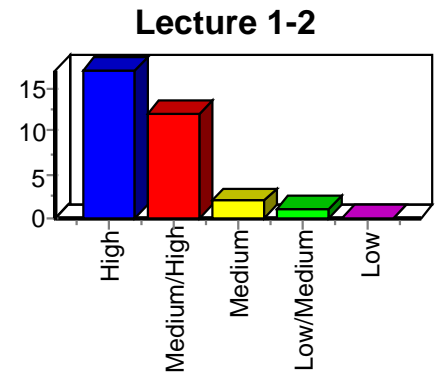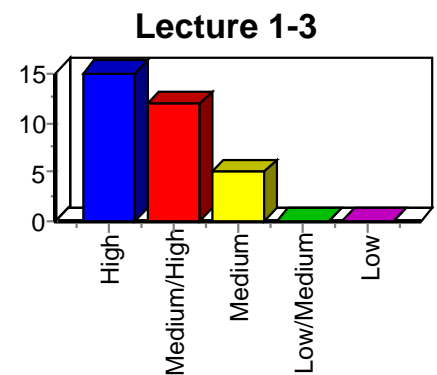| Label	Frequency	Percent	Valid Percent
High	6	18.75	18.75
Medium/High	8	25.00	25.00
Medium	11	34.38	34.38
Low/Medium	3	9.38	9.38
Low	4	12.50	12.50
Total Valid	32	100.00	100.00

Lecture 1-1

Lecture 1: The Relationship between Arthritis and Cardiovascular Risk - Relevance to your educational needs:

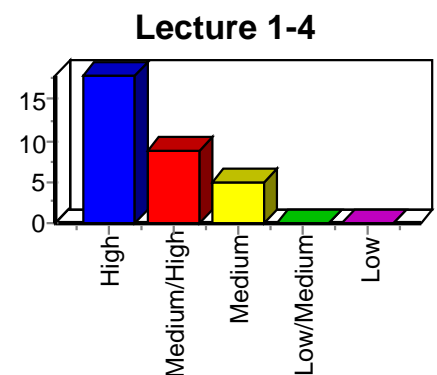| Label	Frequency	Percent	Valid Percent
High	17	53.13	53.13
Medium/High	12	37.50	37.50
Medium	2	6.25	6.25
Low/Medium	1	3.13	3.13
Low	0	0.00	0.00
Total Valid	32	100.00	100.00

Lecture 1-2

Lecture 1: The Relationship between Arthritis and Cardiovascular Risk - Depth/scope of coverage:

Label	Frequency	Percent	Valid Percent
High	15	46.88	46.88
Medium/High	12	37.50	37.50
Medium	5	15.63	15.63
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	32	100.00	100.00

Lecture 1-3


Lecture 1: The Relationship between Arthritis and Cardiovascular Risk - Quality of presentation:

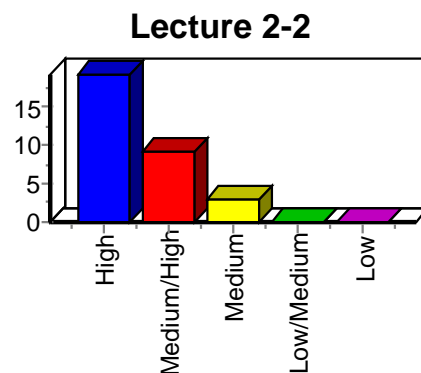| Label	Frequency	Percent	Valid Percent
High	18	56.25	56.25
Medium/High	9	28.13	28.13
Medium	5	15.63	15.63
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	32	100.00	100.00

Lecture 1-4

Lecture 2: Cardiometabolic Syndrome and Clinical Challenges: Management in Patients with RA - Your prior knowledge of topic:

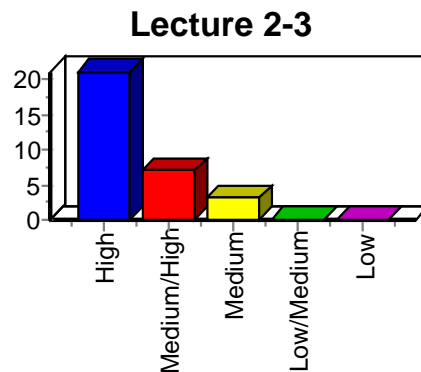| Label	Frequency	Percent	Valid Percent
High	7	21.88	22.58
Medium/High	11	34.38	35.48
Medium	9	28.13	29.03
Low/Medium	3	9.38	9.68
Low	1	3.13	3.23
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	
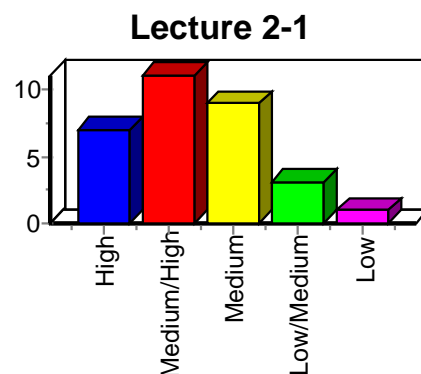
Lecture 2-1

Lecture 2: Cardiometabolic Syndrome and Clinical Challenges: Management in Patients with RA - Relevance to your educational needs:

Label	Frequency	Percent	Valid Percent
High	19	59.38	61.29
Medium/High	9	28.13	29.03
Medium	3	9.38	9.68
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	

Lecture 2-2

Lecture 2: Cardiometabolic Syndrome and Clinical Challenges: Management in Patients with RA - Depth/scope of coverage:

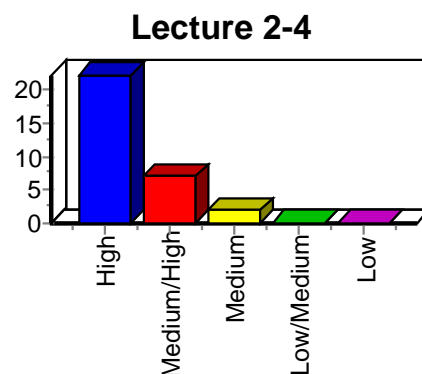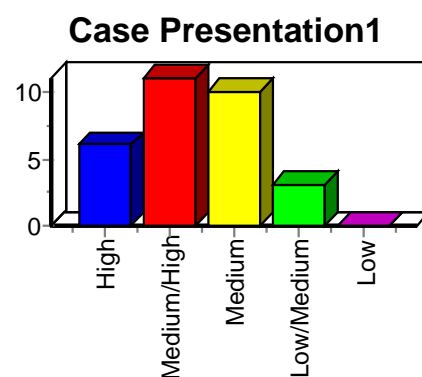| Label	Frequency	Percent	Valid Percent
High	21	65.63	67.74
Medium/High	7	21.88	22.58
Medium	3	9.38	9.68
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	

Lecture 2-3

Lecture 2: Cardiometabolic Syndrome and Clinical Challenges: Management in Patients with RA - Quality of presentation:

Label	Frequency	Percent	Valid Percent
High	22	68.75	70.97
Medium/High	7	21.88	22.58
Medium	2	6.25	6.45
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	

Lecture 2-4

Case Presentation - Your prior knowledge of topic:

Label	Frequency	Percent	Valid Percent
High	6	18.75	20.00
Medium/High	11	34.38	36.67
Medium	10	31.25	33.33
Low/Medium	3	9.38	10.00
Low	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Case Presentation1

Case Presentation - Relevance to your educational needs:

Label	Frequency	Percent	Valid Percent
High	17	53.13	56.67
Medium/High	10	31.25	33.33
Medium	3	9.38	10.00
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Case Presentation2
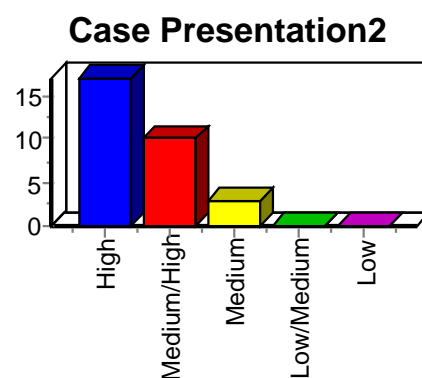
Case Presentation - Depth/scope of coverage:

Label	Frequency	Percent	Valid Percent
High	17	53.13	56.67
Medium/High	10	31.25	33.33
Medium	3	9.38	10.00
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Case Presentation3
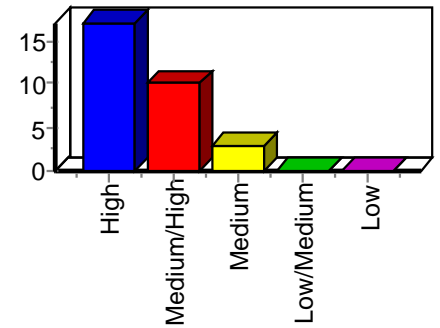
Case Presentation - Quality of presentation:

Label	Frequency	Percent	Valid Percent
High	20	62.50	66.67
Medium/High	7	21.88	23.33
Medium	3	9.38	10.00
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Case Presentation4
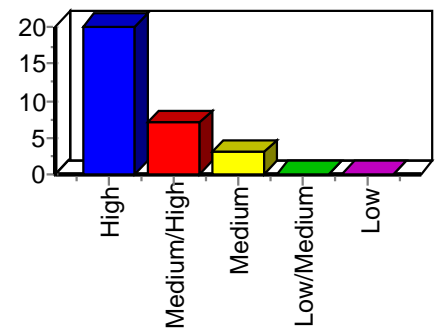
Break Out Session - Your prior knowledge of topic:

Label	Frequency	Percent	Valid Percent
High	6	18.75	20.00
Medium/High	10	31.25	33.33
Medium	10	31.25	33.33
Low/Medium	4	12.50	13.33
Low	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	
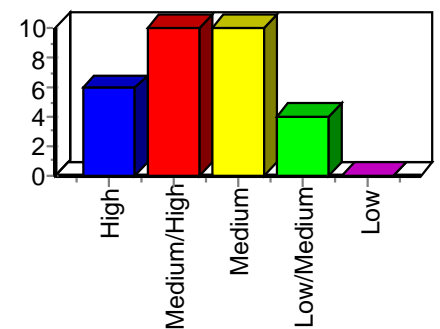
Break Out Session1

Break Out Session - Relevance to your educational needs:

Label	Frequency	Percent	Valid Percent
High	16	50.00	53.33
Medium/High	12	37.50	40.00
Medium	2	6.25	6.67
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	
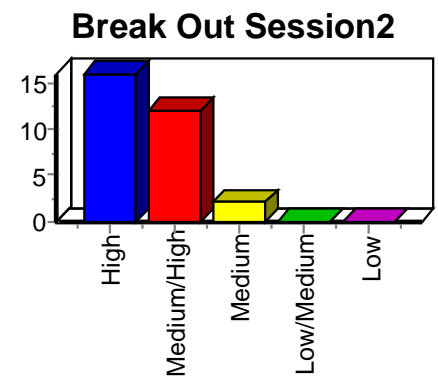
Break Out Session2

Break Out Session - Depth/scope of coverage:

Label	Frequency	Percent	Valid Percent
High	19	59.38	63.33
Medium/High	9	28.13	30.00
Medium	2	6.25	6.67
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	
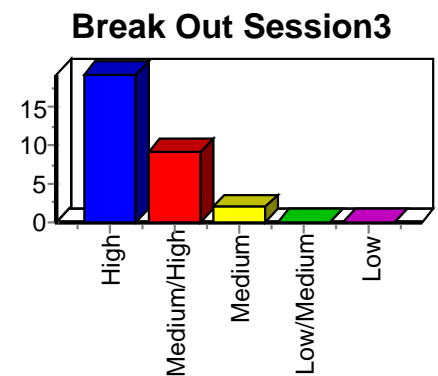
Break Out Session3

Break Out Session - Quality of presentation:

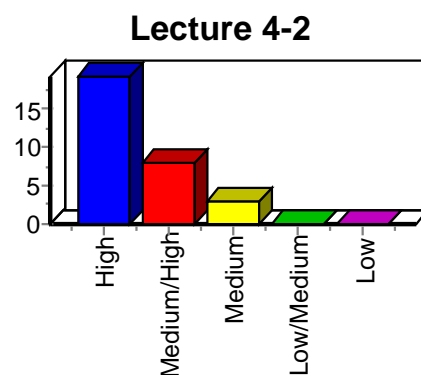| Label	Frequency	Percent	Valid Percent
High	21	65.63	70.00
Medium/High	6	18.75	20.00
Medium	3	9.38	10.00
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Break Out Session4
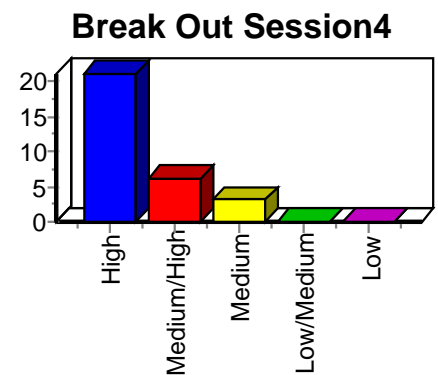
Lecture 4: Improving Care Coordination for your Patients with RA: What Works, What Doesn't - Your prior knowledge of topic:

Label	Frequency	Percent	Valid Percent
High	5	15.63	16.67
Medium/High	8	25.00	26.67
Medium	12	37.50	40.00
Low/Medium	3	9.38	10.00
Low	2	6.25	6.67
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	
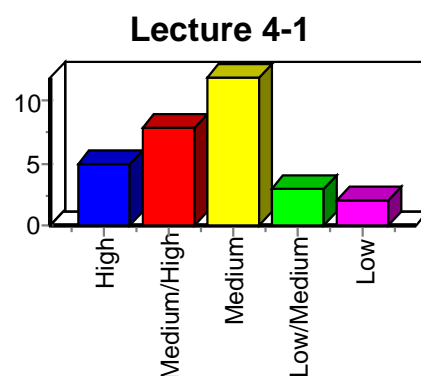
Lecture 4-1

Lecture 4: Improving Care Coordination for your Patients with RA: What Works, What Doesn't - Relevance to your educational needs:

Label	Frequency	Percent	Valid Percent
High	19	59.38	63.33
Medium/High	8	25.00	26.67
Medium	3	9.38	10.00
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Lecture 4-2

Lecture 4: Improving Care Coordination for your Patients with RA: What Works, What Doesn't - Depth/scope of coverage:

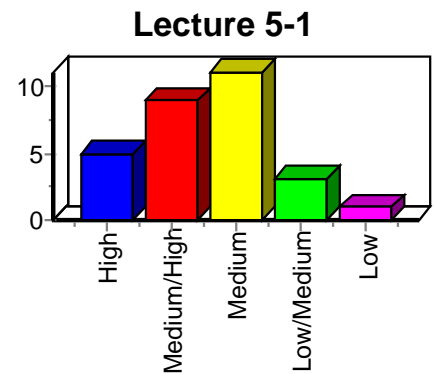| Label	Frequency	Percent	Valid Percent
High	20	62.50	66.67
Medium/High	6	18.75	20.00
Medium	4	12.50	13.33
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	
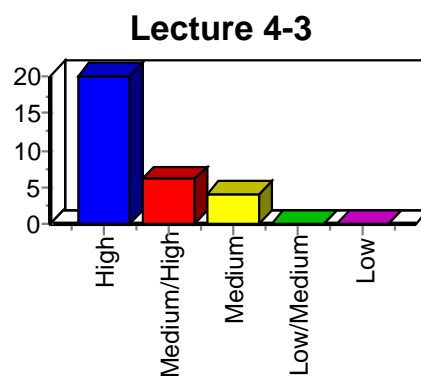
Lecture 4-3

Lecture 4: Improving Care Coordination for your Patients with RA: What Works, What Doesn't - Quality of presentation:

Label	Frequency	Percent	Valid Percent
High	18	56.25	60.00
Medium/High	7	21.88	23.33
Medium	5	15.63	16.67
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	
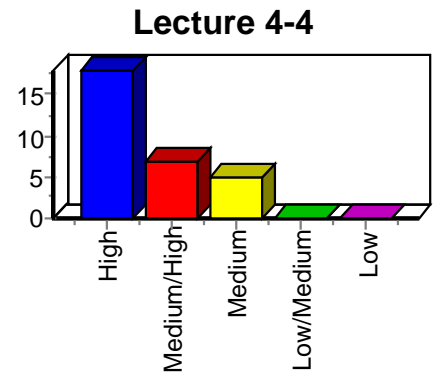
Lecture 4-4

Lecture 5: Selecting practice goals and developing your QI plan for managing CV Risk factors in patients with RA - Your prior knowledge of topic:

Label	Frequency	Percent	Valid Percent
High	5	15.63	17.24
Medium/High	9	28.13	31.03
Medium	11	34.38	37.93
Low/Medium	3	9.38	10.34
Low	1	3.13	3.45
Total Valid	29	90.63	100.00
Total Missing	3	9.38	
Total	32	100.00	

Lecture 5-1

Lecture 5: Selecting practice goals and developing your QI plan for managing CV Risk factors in patients with RA - Relevance to your educational needs:

Label	Frequency	Percent	Valid Percent
High	15	46.88	51.72
Medium/High	10	31.25	34.48
Medium	4	12.50	13.79
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	29	90.63	100.00
Total Missing	3	9.38	
Total	32	100.00	

Lecture 5-2

Lecture 5: Selecting practice goals and developing your QI plan for managing CV Risk factors in patients with RA - Depth/scope of coverage:

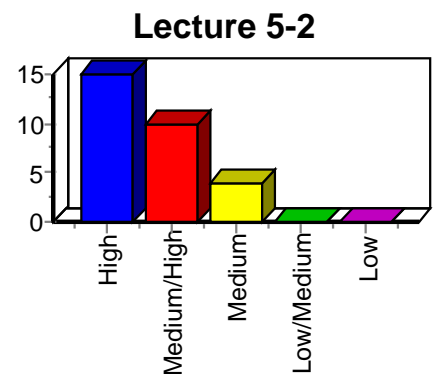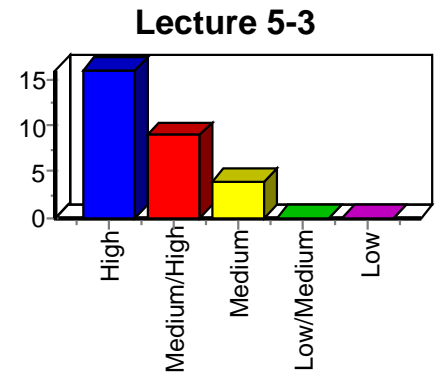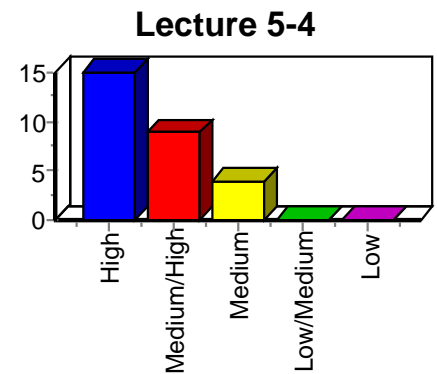| Label	Frequency	Percent	Valid Percent
High	16	50.00	55.17
Medium/High	9	28.13	31.03
Medium	4	12.50	13.79
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	29	90.63	100.00
Total Missing	3	9.38	
Total	32	100.00	

Lecture 5-3

Lecture 5: Selecting practice goals and developing your QI plan for managing CV Risk factors in patients with RA - Quality of presentation:

Label	Frequency	Percent	Valid Percent
High	15	46.88	53.57
Medium/High	9	28.13	32.14
Medium	4	12.50	14.29
Low/Medium	0	0.00	0.00
Low	0	0.00	0.00
Total Valid	28	87.50	100.00
Total Missing	4	12.50	
Total	32	100.00	

Lecture 5-4

The activity met the learning objectives:

Label	Frequency	Percent	Valid Percent
Agree	27	84.38	87.10
Somewhat Agree	2	6.25	6.45
Neutral	2	6.25	6.45
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	

Course Evaluation1
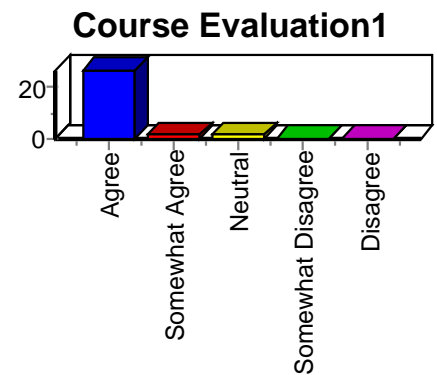
The scope, depth, and level of activity content were appropriate:

Label	Frequency	Percent	Valid Percent
Agree	26	81.25	86.67
Somewhat Agree	3	9.38	10.00
Neutral	1	3.13	3.33
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Course Evaluation2
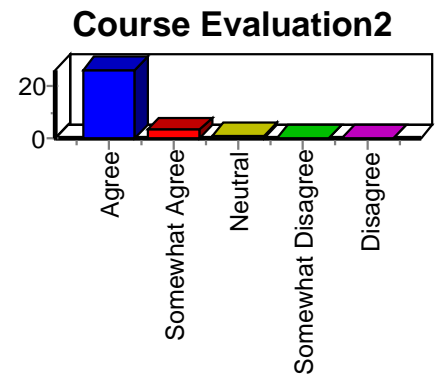
The content of the presentations reflected a fair, balanced review of the selected topics:

Label	Frequency	Percent	Valid Percent
Agree	25	78.13	80.65
Somewhat Agree	4	12.50	12.90
Neutral	2	6.25	6.45
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	

Course Evaluation3
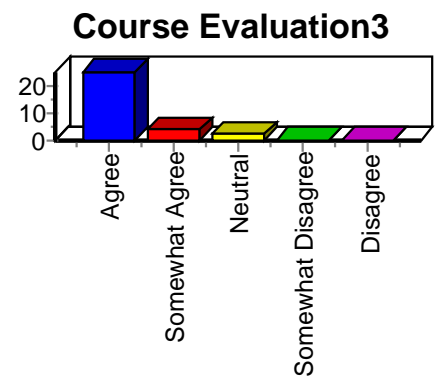
The content was evidence-based:

Label	Frequency	Percent	Valid Percent
Agree	28	87.50	90.32
Somewhat Agree	1	3.13	3.23
Neutral	2	6.25	6.45
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	

Course Evaluation4
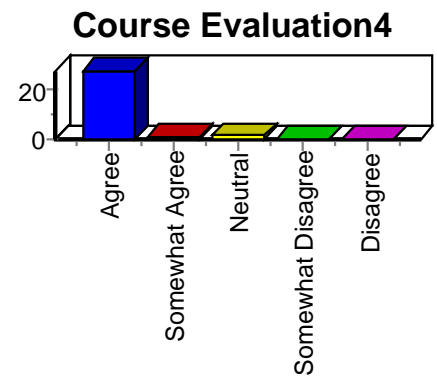
The content was aligned with professional practice/activities:

Course Evaluation5

Label	Frequency	Percent	Valid Percent
Agree	27	84.38	90.00
Somewhat Agree	1	3.13	3.33
Neutral	2	6.25	6.67
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	
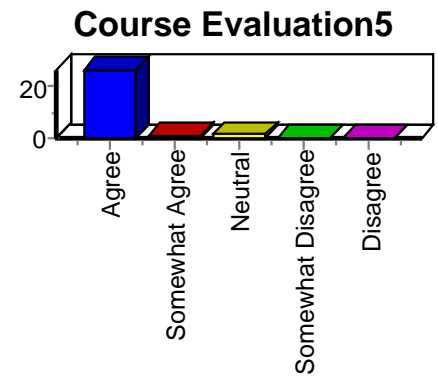
The content of this activity addressed the following desireable clinicain attributes from IOM/ACGME Competencies - Medical knowledge:

Competencies1

Label	Frequency	Percent	Valid Percent
Agree	27	84.38	87.10
Somewhat Agree	2	6.25	6.45
Neutral	2	6.25	6.45
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	
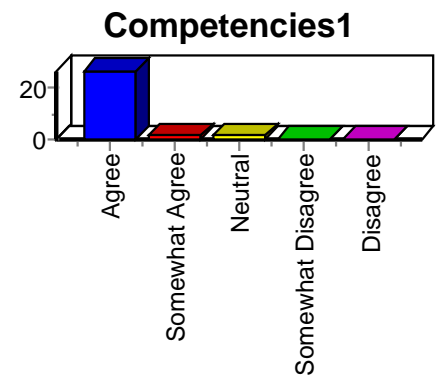
The content of this activity addressed the following desireable clinicain attributes from IOM/ACGME Competencies - Professionalism:

Competencies2

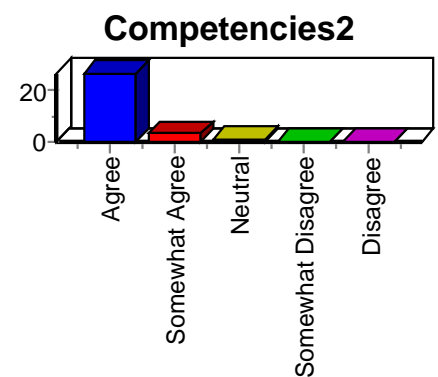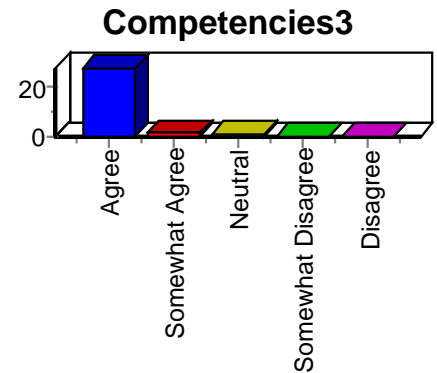| Label	Frequency	Percent	Valid Percent
Agree	27	84.38	87.10
Somewhat Agree	3	9.38	9.68
Neutral	1	3.13	3.23
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	

The content of this activity addressed the following desireable clinicain attributes from IOM/ACGME Competencies - Evidence-based practice:

Label	Frequency	Percent	Valid Percent
Agree	28	87.50	90.32
Somewhat Agree	2	6.25	6.45
Neutral	1	3.13	3.23
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	

Competencies3

The content helped to address, overcome, or remove barriers to change in your practice:

Label	Frequency	Percent	Valid Percent
Agree	24	75.00	77.42
Somewhat Agree	6	18.75	19.35
Neutral	1	3.13	3.23
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	31	96.88	100.00
Total Missing	1	3.13	
Total	32	100.00	

Course Evaluation6
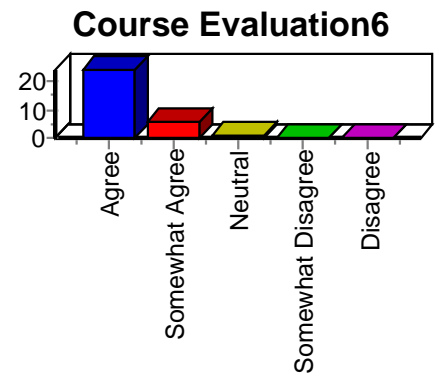
The content was not commercially biased:

Label	Frequency	Percent	Valid Percent
Agree	26	81.25	86.67
Somewhat Agree	2	6.25	6.67
Neutral	1	3.13	3.33
Somewhat Disagree	0	0.00	0.00
Disagree	1	3.13	3.33
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Course Evaluation7
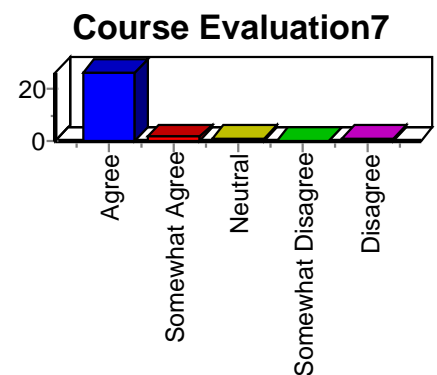
The format was appropriate for the objectives and desired result:

Label	Frequency	Percent	Valid Percent
Agree	25	78.13	83.33
Somewhat Agree	3	9.38	10.00
Neutral	2	6.25	6.67
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Course Evaluation8
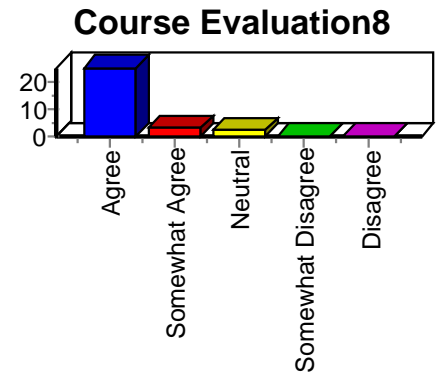
There was adequate time for questions and faculty interaction:

Label	Frequency	Percent	Valid Percent
Agree	24	75.00	80.00
Somewhat Agree	4	12.50	13.33
Neutral	2	6.25	6.67
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Course Evaluation9
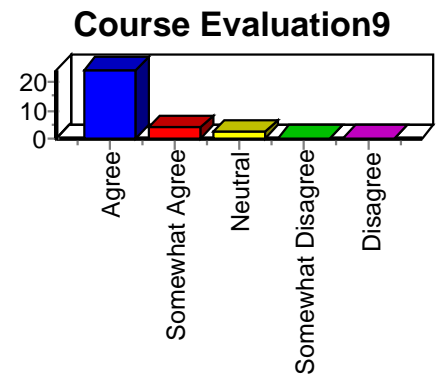
The use of ARS enhanced the learning experience:

Label	Frequency	Percent	Valid Percent
Agree	22	68.75	81.48
Somewhat Agree	4	12.50	14.81
Neutral	1	3.13	3.70
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	27	84.38	100.00
Total Missing	5	15.63	
Total	32	100.00	

Course Evaluation10

As a result of attending this activity, you will modify some aspect of managing patients with rheumatoid arthritis:

Label	Frequency	Percent	Valid Percent
Agree	26	81.25	86.67
Somewhat Agree	3	9.38	10.00
Neutral	1	3.13	3.33
Somewhat Disagree	0	0.00	0.00
Disagree	0	0.00	0.00
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Course Evaluation11

If you do plan to modify patient management as a result of attending this activity, which aspects of your practice do you intend to change?

Label	Frequency	Percent	Valid Percent
Apply more effective methods for screening cardiometabolic risk that would be appropriate for use in people with Rheumatoid Arthritis {RA}	21	65.63	70.00
Develop and implement more efficient office-based systems for screening for and documentation of cardiometabolic risk factors in RA patients	18	56.25	60.00
More effectively identify barriers within the practice and across the consultative care system for timely screening of cardiometabolic risk in people with RS	13	40.63	43.33
Improve team-based identification and intervention to treat cardiometabolic risk in people with RA	17	53.13	56.67
Other	2	6.25	6.67
Total Valid	30	93.75	100.00
Total Missing	2	6.25	
Total	32	100.00	

Do Plan to Modify
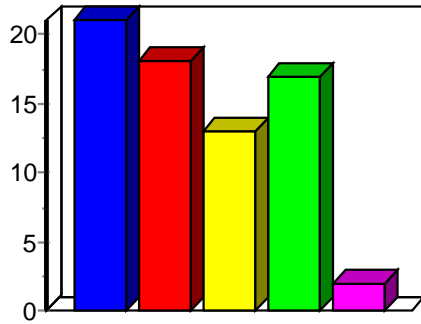
If you do not plan to modify patient management, why not?

Do Not Plan To Modify Management

Label	Frequency	Percent	Valid Percent
Current practice is satisfactory	0	0.00	0.00
Lack of patient visit time	0	0.00	0.00
Lack of practice management time	0	0.00	0.00
Lack of staff resources	1	3.13	33.33
Lack of materials and tools	0	0.00	0.00
Lack of support for change by administration	0	0.00	0.00
Administrative/system costs	0	0.00	0.00
Care costs/insurance coverage	1	3.13	33.33
Patient barriers	0	0.00	0.00
Other	2	6.25	66.67
Total Valid	3	9.38	100.00
Total Missing	29	90.63	
Total	32	100.00	
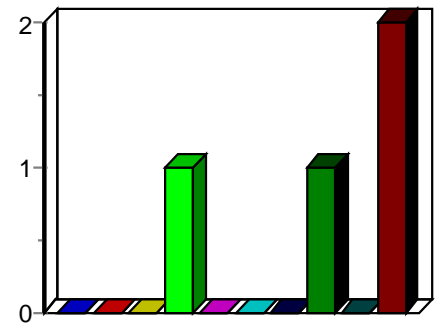
What topics would you like to see covered in future Joslin CME activities to help you improve your practice, patient care, and patient outcomes?

Label	Frequency	Percent	Valid Percent
Designing treatments for type 2 diabetes	9	28.13	37.50
Using treatment guidelines in diabetes treatment	11	34.38	45.83
Managing and troubleshooting insulin treatment programs	8	25.00	33.33
Preventing cardiovascular complications in patients with diabetes	5	15.63	20.83
Managing neuropathy in patients with diabetes	9	28.13	37.50
Initiating and managing insulin therapy	7	21.88	29.17
Improving patient adherence to diabetes treatment plans	12	37.50	50.00
Diagnosing and treating cardiovascular disease	4	12.50	16.67
Caring for the diabetic foot	6	18.75	25.00
Reducing clinical inertia in diabetes care	3	9.38	12.50
Implementing new diabetes treatment	5	15.63	20.83
Improving office systems of diabetes care	1	3.13	4.17
Total Valid	24	75.00	100.00
Total Missing	8	25.00	
Total	32	100.00	

Future Topics
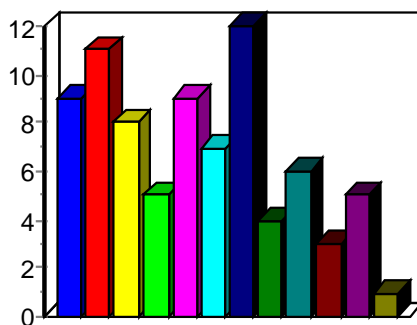
What is your professional credential?

Comment
MA

What is your area of practice specialty?

Comment
Admin
ID

In which setting do you perform most of your patient care?

Comment
FMC
Admin

How did you hear about this activity?

Comment
FMC Email
Humedics
FMC Email
FMC Email
FMC Email
FMC
FMC

Why did you select this activity?

Comment
Colleague
Colleague
Interesting topic
Doctor

If you do plan to modify patient management as a result of attending this activity, which aspects of your practice do you intend to change? Other:

Comment
Not a provider

If you do not plan to modify patient management, why not? Other:

Comment
Not a provider
Patient preference

Other comments?

Comment
Thank you
Superb event!
It was very interesting and educative
Excellent initiative

Item Statistics:

	Professional Credential	Specialty	Years in Practice	Setting	Size of Practice	How Many Patients	Hear About Activity
Mean	1.66	1.78	2.06	1.39	2.84	1.47	-
Variance	2.49	0.82	0.83	0.85	0.87	1.09	-
Standard Deviation	1.58	0.91	0.91	0.92	0.93	1.04	-
Standard Error	0.28	0.16	0.16	0.17	0.17	0.19	-
Minimum	1.00	1.00	1.00	1.00	2.00	1.00	-
Maximum	9.00	4.00	4.00	4.00	4.00	4.00	-

	Choose Activity	Lecture 1-1	Lecture 1-2	Lecture 1-3	Lecture 1-4	Lecture 2-1	Lecture 2-2
Mean	-	3.28	4.41	4.31	4.41	3.65	4.52
Variance	-	1.56	0.57	0.54	0.57	1.10	0.46
Standard Deviation	-	1.25	0.76	0.74	0.76	1.05	0.68
Standard Error	-	0.22	0.13	0.13	0.13	0.19	0.12
Minimum	-	1.00	2.00	3.00	3.00	1.00	3.00
Maximum	-	5.00	5.00	5.00	5.00	5.00	5.00

	Lecture 2-3	Lecture 2-4	Case Presentation1	Case Presentation2	Case Presentation3	Case Presentation4	Break Out Session1
Mean	4.58	4.65	3.67	4.47	4.47	4.57	3.60
Variance	0.45	0.37	0.85	0.46	0.46	0.46	0.94
Standard Deviation	0.67	0.61	0.92	0.68	0.68	0.68	0.97
Standard Error	0.12	0.11	0.17	0.12	0.12	0.12	0.18
Minimum	3.00	3.00	2.00	3.00	3.00	3.00	2.00
Maximum	5.00	5.00	5.00	5.00	5.00	5.00	5.00

	Break Out Session2	Break Out Session3	Break Out Session4	Lecture 4-1	Lecture 4-2	Lecture 4-3	Lecture 4-4
Mean	4.47	4.57	4.60	3.37	4.53	4.53	4.43
Variance	0.40	0.39	0.46	1.21	0.46	0.53	0.60
Standard Deviation	0.63	0.63	0.67	1.10	0.68	0.73	0.77
Standard Error	0.11	0.11	0.12	0.20	0.12	0.13	0.14
Minimum	3.00	3.00	3.00	1.00	3.00	3.00	3.00
Maximum	5.00	5.00	5.00	5.00	5.00	5.00	5.00

	Lecture 5-1	Lecture 5-2	Lecture 5-3	Lecture 5-4	Course Evaluation1	Course Evaluation2	Course Evaluation3
Mean	3.48	4.38	4.41	4.39	4.81	4.83	4.74
Variance	1.04	0.53	0.54	0.54	0.29	0.21	0.33
Standard Deviation	1.02	0.73	0.73	0.74	0.54	0.46	0.58
Standard Error	0.19	0.14	0.14	0.14	0.10	0.08	0.10
Minimum	1.00	3.00	3.00	3.00	3.00	3.00	3.00
Maximum	5.00	5.00	5.00	5.00	5.00	5.00	5.00

	Course Evaluation4	Course Evaluation5	Competencies1	Competencies2	Competencies3	Course Evaluation6	Course Evaluation7
Mean	4.84	4.83	4.81	4.84	4.87	4.74	4.73
Variance	0.27	0.28	0.29	0.21	0.18	0.26	0.69
Standard Deviation	0.52	0.53	0.54	0.45	0.43	0.51	0.83
Standard Error	0.09	0.10	0.10	0.08	0.08	0.09	0.15
Minimum	3.00	3.00	3.00	3.00	3.00	3.00	1.00
Maximum	5.00	5.00	5.00	5.00	5.00	5.00	5.00

	Course Evaluation8	Course Evaluation9	Course Evaluation10	Course Evaluation11	Do Plan to Modify	Do Not Plan To Modify Management	Future Topics
Mean	4.77	4.73	4.78	4.83	-	-	-
Variance	0.32	0.34	0.26	0.21	-	-	-
Standard Deviation	0.57	0.58	0.51	0.46	-	-	-
Standard Error	0.10	0.11	0.10	0.08	-	-	-
Minimum	3.00	3.00	3.00	3.00	-	-	-
Maximum	5.00	5.00	5.00	5.00	-	-	-