

Pre-MRI Patient Questionnaire: Clinical Audit

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DISCLOSURE

None



OUTLINE

- Background
- Aim
- Audit Target
- Methods
- Results (1st Cycle)
- Intervention
- Results (2nd & 3rd Cycles)
- Conclusion



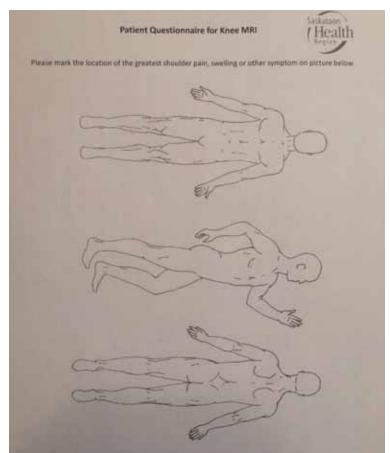
BACKGROUND

- MRI requisition forms from physicians provide variable quantity and quality of clinical information
- Pre-MRI patient questionnaires are used for routine joint MSK MRI exams
 - Provide clinical information that help in the interpretation of the MRI
- Inconsistently completed and/or scanned into PACS with the patient's images



PATIENT QUESTIONNAIRE

Which knee are you having imaged today? Right Left Both (please fill out a separate form for each knee) What is the main complaint? Pain Swelling or lump Stiff or 'Locked/Catching' Where is the pain or swelling localized? All over knew Specific apost(s) as marked on back of page Do you participate in sports? No Yes - Please describe which sports and how often you play. How long has this been bethering you? Less than 2 weeks 2 weeks to 3 months 4 months to 1 year Years Did you have a specific injury that you can recall? No, chronic problem with no specific injury Yes, acute injury with no prior troubles. If history of injury, please describe Have you had a joint injection on this knee? Yes No If yes when was most recent injection? Have you aver had surgery or arthroscopy on this knee? No Arthroscopy with arthroscopic surgery Surgery	Healt Healt
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Arthroscopy with arthroscopic surgery	
If you have had arthroscopic surgery or surgery, what was operated on? Please check all that apply	
Unsure: Fracture broken bone	
Meniscus ACL or other ligaments Cartilage Joint replacement	
Other (please describe)	





LITERATURE REVIEW

- No national or international standards or guidelines
- Pre-MRI patient questionnaire is not standard across Canada or Saskatoon
- Background literature review revealed no similar type of project has been carried out to date



AIM

 To assess the compliance of the pre-MRI patient questionnaire



AUDIT TARGET

 The questionnaire should be completed and scanned into PACS for 99% of cases



METHODS

PRE-INTERVENT	TION CONTRACTOR OF THE PROPERTY OF THE PROPERT
Design	Retrospective review of pre-MRI patient questionnaires
Patients	 Inclusion Criteria: All routine joint MRI exams at an university-based practice from October 1, 2015 to December 31, 2015 (shoulder, elbow, wrist, hip, knee and ankle MRIs) Arthograms were included
	 Exclusion Criteria: Studies with non-routine MRI protocols or selective sequences, such as tumor/infection
Outcome	Pre-MRI patient questionnaire compliance



FIRST AUDI	Г				
Month	Questionnaire Included	Front Page	Completed	Back Page	Completed



FIRST AUDIT						
Month	Questionnaire Included	Front Page	Completed	Back Page	Completed	
October	170/182	170/170	170/170	148/170	109/148	
November	160/172	160/160	158/160	145/160	111/145	
December	70/79	70/70	68/70	66/70	43/66	
Total	400/430	400/400	396/400	359/400	263/359	
	93%	100%	99%	90%	73%	



Did NOT meet target of 99% compliance



- WHY?
 - Front staff not distributing questionnaire
 - Patients are non-compliant with completing the questionnaire or do not realize there is a second page
 - MRI technicians not scanning questionnaire into PACS
 - Waste of time or cumbersome scanning blank pages
 - Misplaced



- First audit results presented at a provincially broadcast PQI presentation in January 2016
- Input obtained from relevant stakeholders, including radiologists who read MSK MRI exams and the MRI technicians/front staff
- Changes made based on feedback



	Patient Question	nnaire for Knee MRI	(3)
Name	1	Date	
Which knee are you	having imaged today		
Right La	eff Both (ples	ase fill out a separate form for o	ach knee)
What is the main co	omplaint?		
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Where is the pain of	r swelling localized?		
All over knew		o(s) as marked on back of page	
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No		and the second second	
1 cs - Please desc	tribe which sports and	how often you play.	
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	lem with no specific in		
	blem made worse by a with no prior troubles.		
	injury, please describe		
Have you had a join	st injection on this kner	er.	
Yes	No		
If yes - who	n was most recent inje	ction?	
Have you ever had :	surgery or arthrescopy	on this knee?	
No			
Arthroscopy enly	arthroscopic surgery		
Surgery	arunoscopie surgery		
If you have had with	mosconic surgery or su	rgery, what was operated on?	
	all that apply	acty, waste was opening the	
Uneury.		broken bone	
Meniscus		ther ligaments	
Cartilage	Joint rept	acement	
Other (please des	cribe)		

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criter-skillingury. (P)	eass Describe:		
7. Have you had a joint in	Asserting that their bosons b		
11.190		frecent injection?	
W. Many and story had not	ery or arthroscopy on this knee?		
	- Arthroscopic surgery		
	ocopic surgery or surgery, what we eck all that apply)	as operated on?	
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:: Cartilege	= 3pirt replacement.	is Eigament (ACL or other)	
Other (please describe			
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o Uneure	= Fracture/broken bone	Menacus	
Continge.	Artnetes	:: Elgament (ACL or other)	
confection.	Cither (pierese describe)	See other side	1



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Where is the pain or swellis	ng localized?		
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No.	Particular construction of the Construction	Constant of	
1 cs - Please describe wh	ich sports and how often y	rou pray.	
How long has this been bet			
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	ide worse by a specific inj	WY.	
Yes, acute injury with no If history of injury.			
at missory or impury.	piease describe		-
Have you had a joint injecti	ion on this knoe?		
Yes N			
If yes - when was n	nost recent injection?		
Have you ever had surgery	or arthrescopy on this kne	re?	
No			
Arthroscopy only			
Arthroscopy with arthros	copic surgery		
Surgery			
If you have had arthroscopi		t was operated on?	
Please check all that	apply		
Uneure:	Fracture broken bon		
Meniscus	ACL or other ligame	tits:	
Cartilage	Joint replacement		
Other (please describe)			

Name	200	/ Health
-	Date	Training.
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- All town knee	Specific spot(s). Premi me	ex spots with W on held of page
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		reational travelyment
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	structure/process that you are concer-	and seek purious know characters ()
ti timare	se check all that apply) ii Fracture/broken bone	Men lin
Cartilage	Arthritis	in Lament (ACL or other)
is infection	Other (please destribe)	
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SECOND AUDIT CYCLE

- From March 1, 2016 to May 31, 2016
- Two months between cycles
- A total of 383 MRI exams met the inclusion criteria in the second audit cycle



THIRD AUDIT CYCLE

- From October 1, 2016 to December 31, 2016
- A full year since the first audit cycle
- A total of 371 MRI exams met the inclusion criteria in the third audit cycle



SECOND AUE	SECOND AUDIT						
Month	Questionnaire Included	Front Page	Completed	Back Page	Completed		
March	94/104	94/94	94/94	88/94	88/88		
April	112/117	112/112	112/112	107/112	103/107		
May	157/162	157/157	156/157	150/157	143/150		
Total	363/383	363/363	362/363	345/363	334/345		
	95%	100%	~ 100%	95%	96%		



THIRD AUDIT					
Month	Questionnaire Included	Front Page	Completed	Back Page	Completed
October	115/116	115/115	114/115	111/115	105/111
November	141/145	141/141	141/141	136/141	131/136
December	108/110	108/108	107/108	107/108	99/107
Total	364/371	364/364	362/364	354/364	335/354
	98%	100%	99%	97%	95%



COMPARISON					
Month	Questionnaire Included	Front Page	Completed	Back Page	Completed
First Audit	400/430	400/400	396/400	359/400	263/359
Second	93% 363/383	100% 363/363	99% 362/363	90% 345/363	73% 334/345
Audit	95%	100%	~ 100%	95%	96%
Third Audit	364/371	364/364	362/364	354/364	335/354
Audit	98%	100%	99%	97%	95%

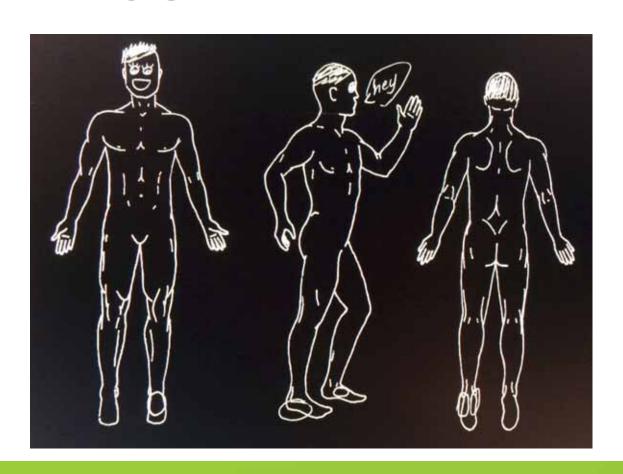


CONCLUSION

- First audit cycle showed room for improvement
- Intervention → new questionnaire
- Second audit cycle showed significant improvement
- Third audit cycle performed a full year later showed lasting changes and further incremental improvement



THANK YOU!





REFERENCES

None