

Successful Implementation of a Performance-Related Audit Tool

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Lead Sonographer



Acknowledgements

- Dr Oliver Byass, Consultant Radiologist, Hull & East Yorkshire Hospitals
- Mr P Cantin, Consultant Sonographer, Plymouth Hospitals NHS Trust
- BMUS Professional Standards Group

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Background

- Quality assurance is important
 - to ensure that delegation is appropriate
 - to guarantee safe and effective practices to service users

Implementing Audit

- An audit programme should be a process of review, learning and improvement for both the service and individuals
- Reproducible, effective, sustainable – and one that encourages practitioner engagement

The Hull Project

- Clinical audit required to meet AQP requirements
- Can an audit process be established which reviews practice and supports sonographer CPD and HCPC requirements?
- What audit process would sonographers engage with?

Project Aims

- Provide a robust, sustainable and useful audit and case review process that identifies needs for service improvement that will ultimately lead to better patient care.
- Provide a process of review and learning that contributes positively to sonographers' continuing professional development.

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Proposed Audit Methods

	Most likely to undertake	Most useful learning tool	Likely to alter practice	Will contribute to HCPC framework
Discrepancy reflection template	9	10	9	11
5% Peer review template	9	7	8	9
Self-review of practice	4	3	2	10
Disease detection rate	4	3	2	10
Abnormal interpretation rate	6	7	7	1
2 nd Opinion rate	5	4	5	0
Symptom solution)	3	4	3	1

Discrepancy Reflection

	Type of Discrepancy
A	Observation
B	Interpretation
C	Poor imaging technique
D	Poor Wording

	Grade of discrepancy
0	No Discrepancy
1	Discrepancy with report – no action required
2	Discrepancy with report – report amended
3	Significant discrepancy with report – action required

5% Peer Review

I	Image Quality
3	High quality examination or suboptimal images with evidence that this was due to patient factors and attempts have been made to address these.
2	Reasonable image quality but a few poorer quality images(incorrect focus, measurement, protocol, colour, label, etc)
1	Poor quality image with inadequate attempt to optimise

R	Report Quality
3	Content and structure optimal
2	Report satisfactory but additional diagnosis or advice could have been provided
1a	Disagreement of interpretation: Requiring action
1b	Disagreement of interpretation: Not requiring action

Audit in Practice

- Activity from previous week is captured from RIS
- 4 hours of audit time per week allocated throughout sessions
- Estimated 5 mins per case reviewed
- Sonographers randomly select cases to review – own and peers

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Audit in Practice

- Request, Images and report reviewed
- Scored by individual using 5% peer review template

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Audit in Practice

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Audit in Practice

	G	J	L	M	N	O
1	DateOfScan	SiteCod	ImageC	ImageQualityComment	Report	ReportQualityComment
5	#####	HRI	2		1b	subsequent CT the day after showed an incidental left renal mass of 4 cm with some cystic spaces p
6	#####	HUS	2		1b	reported normal bladder however only 1 image of an underfilled bladder
7	#####	CUS	3		1a	Endometrium 10 not 210mm Also report states no evidence of accuracy Should that be RPOC
8	#####	ERCH	3		1a	reported as stent but unlikely. Probably suture. Would have reported as FB present corresponding t
9	#####	BUS	3		1a	posterior bladder wall trabeculation consistent with chronic bladder outflow obstruction. consister
10	#####	CUS	3		1a	Liver looks bright compared to right kidney liver doppers done so wonder if noticed fatty infiltratio
11	#####		2		1a	rephrase report as not tendonitis
12	#####		2		1a	needs discussion at msk team meeting re management of axilla looks like normal In
13	#####	HRI	2	alternate preset may given better images	1a	liver stated as normal but image with RK demonstrates fatty infiltration. Raised ALT suspicious for A
18	#####	HRI	3		1a	can see the venetian blind effect but the uterus doesnt seem particularly bulky could this be adenc
19	#####	MOG	3		3	
20	#####	MOG	3		3	
21	#####	MOS	3		3	
22	#####	MOG	3		3	
23	#####	MOG	3		3	
24	#####	WUS	3		3	
25	#####	ERCH	3		3	
26	#####	WUS	3		3	

Scores on the Doors

- 5% peer review is a personal opinion of own or peer's practice
- Process supported by discrepancy meeting

	Most likely to undertake	Most useful learning tool	Likely to alter practice	Will contribute to HCPC framework
Discrepancy reflection template	9	10	9	11

Learning From Audit

- Increasing patient safety by reducing error is a key priority of major health services
- Discrepancy meetings form part of the process of audit within an imaging department.
- Learning from experience to prevent future recurrences is the key to effective clinical governance

Discrepancy Meetings in Practice

- Monthly case review meetings
- Results of the weekly audits are collated
- Any cases demonstrating a discrepancy between the report author and the reviewer are brought to the meeting for review
- The cases with discrepancies are presented and discussed

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Discrepancy Meetings in Practice

- Discrepancy Reflection Template is used to direct discussion
- Attendees vote on the type and grade of any discrepancy
- Learning points and actions are discussed and agreed by the team

Ultrasound Disagreement and Case Review Meeting

Date:	Number Sonographers voting:	
Convenor:		
Disagreement details		
Hey Number		
Date of Investigation		
Type of Investigation		
Exam Site		
<p>A reporting disagreement occurs when a retrospective review, or subsequent information about patient outcome, leads to an opinion different from that expressed in the original report. Not all reporting disagreements are errors.</p>		
Type of Disagreement		VOTES
A	Observation	
B	Interpretation	
C	Poor imaging technique	
D	Poor Wording	
Grade		
0	No Disagreement	
1	Disagreement with report - no action required	
2	Disagreement with report - report amended	
3	Significant disagreement with report - action required	
Outcome of discussion		
Learning Points		Action Points
Grading of error (Majority View) :		
Confidential feedback:		

Date: 06/08/15	Number Sonographers voting: 10
Convenor: P Parker	

Disagreement details	
Hey Number	xxxxxx
Date of Investigation	xxxxxx
Type of Investigation	UABDO
Exam Site	xxxxxx



ascites commented on however no comment on whether report faxed to gp should this have been discussed with a radiologist

Type of Disagreement	VOTES
A Observation	
B Interpretation	
C Poor imaging technique	
D Poor Wording	10

Grade	Abstain	
0	No Disagreement	
1	Disagreement with report - no action required	3
2	Disagreement with report - report amended	5
3	Significant disagreement with report - action required	

Outcome of discussion Learning Points	Action Points
Conclusion of report misleading. Association of ascites with known chronic conditions (CCF) would have been useful. Incidental ascites is abnormal but expected if associated with CCF or chronic liver disease. Liver Dopplers would have been helpful in this case. Would have demonstrated any evidence of portal hypertension or CCF	Supplementary report added stating that ascites may be due to known CCF but if clinically an alternative cause for ascites is suspected then a rescan to evaluate hepatic perfusion would be valuable.
Grading of error (Majority View) : D 2	
Confidential feedback:	



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Discrepancy Meetings in Practice

- Learning points highlight areas of weakness or knowledge deficit within the team and direct clinical presentations in future meetings
- Sonographers review outcomes and evaluate their performance for their annual PDR
- Reflection and learning outcomes are an important part of this audit process as well as supporting CPD

What can BMUS do for you?

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British Medical Ultrasound Society

- Professional Standards Group (PSG) develop standards relevant to ultrasound practice.
- These include:
 - criteria for referral for ultrasound
 - **image and reporting quality**
 - equipment performance including criteria for suspension

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British Medical Ultrasound Society

- The BMUS recommended peer review audit tool
- Reproducible mechanism with which quality factors can be measured reliably and repeatedly.
 - Image Quality
 - Report Quality
 - Clinical Quality

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Recommendations for Use

- Audit is undertaken in conjunction with a discrepancy meeting.
- A tolerance level of acceptable quality is agreed
- Cases falling below this tolerance level should be discussed openly within a discrepancy meeting
- Learning points and further action agreed

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Recommendations for Use

- Aim for a review of 5% of all examinations and reports (RCR recommendation by 2017)
- A timely retrospective audit of cases is required

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Score Criteria

IMAGE QUALITY (I)

- 3 Good Image Quality
- 2 Acceptable Diagnostic Quality
- 1 Poor Image Quality

REPORT QUALITY (R)

- 3 Report Content and Structure Optimal
- 2 Report of Acceptable Quality
- 1 Poor Report Quality

CLINICAL QUALITY (C)

Yes = 1 point, No = 0 points

- Clinical Referral Appropriate
- Clinical Question Answered
- Appropriate advice or conclusion

PEER REVIEW AUDIT TOOL

Date of Scan	Reporter	Machine / Site
Date of Review	Reviewer	Patient Identification

Image Quality (I)

I	Score	Comments
3 Good Image Quality		
2 Acceptable Diagnostic Quality		
1 Poor Image Quality (Images of an unacceptable standard)		

Report Quality (R)

R	Score	Comments
3 Report Content and Structure Optimal		
2 Report of Acceptable Quality		
1 Poor Report Quality		

Clinical Quality (C)

C (Y=1;N=0)	Yes	No	Comments
Clinical Referral Appropriate		*q	
Clinical Question Answered			
Appropriate advice or conclusion (including no abnormality demonstrated)			

Overall Score:	Comments:	
I	R	C* Total:

Summary

- Clinical audit supports sonographer CPD
- Reflection and learning outcomes are an important part of this audit process
- Learning points highlight areas of weakness or knowledge deficit within the team and direct clinical presentations in future meetings
- BMUS audit tool is here to help

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Image Review

- Review the image, report and clinical quality of the following cases
- Use the BMUS recommended audit tool provided

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For more information and for the BMUS
recommended audit tool visit

www.bmus.org