

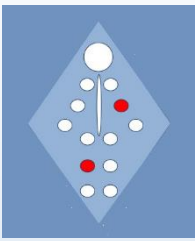
# Auditing Key Practice Indicators Workshop

Henry Aaverns



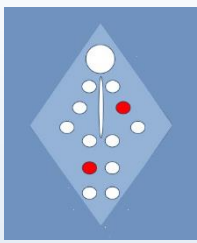
# Declaration of conflict of interests

- I have received honoraria for advisory boards, or educational grants (for conference travel) from the following companies:
- Abbvie, Janssen, UCB, Celgene



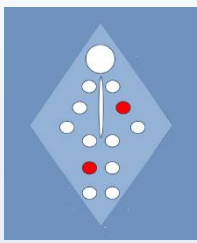
# Agenda

- Background – introduction to the audit cycle
- The “Biologic Safety Audit”
  - Design
  - Summary of results
- Workshop
  - What can / should the CRA do to encourage practice reflection and audit?



# Part 1

- What is clinical audit?
- What are key practice indicators?
- Example of an audit cycle
- Who should decide what we measure?
- How should we collect, share and use data?
- Other areas for audit



# The essence of the issue

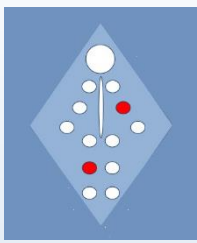
People not actually doing in practice what they  
think they are doing



## WHAT IS CLINICAL AUDIT?

- A tool for quality improvement
- ...of processes or outcomes
- Compares medical practice to defined standards
- A continuous cycle
- A clinical tool not a regulatory tool
- Can be personal or group activity

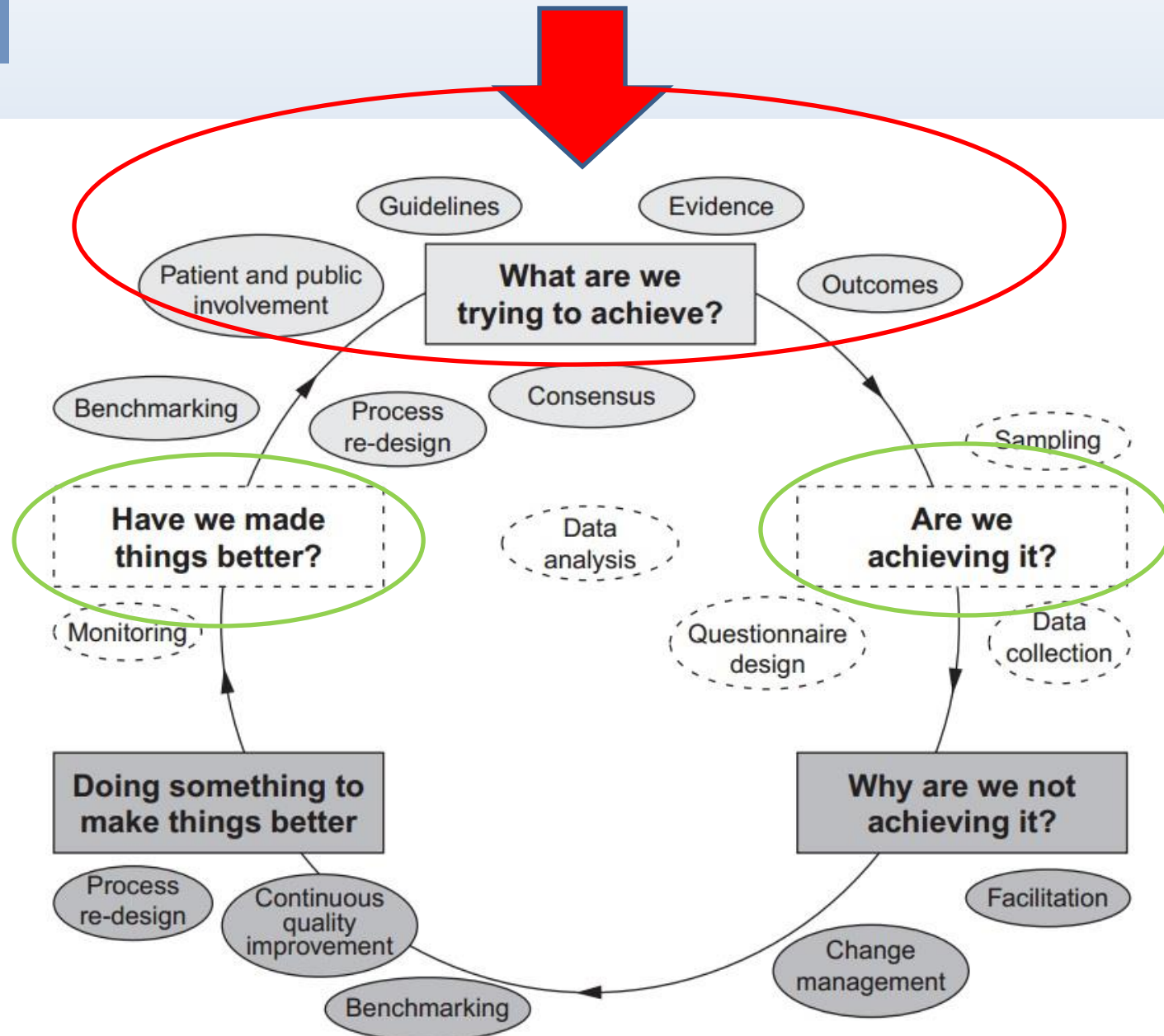
	AUDIT	RESEARCH	SURVEY
PURPOSE	Tests practice against evidence-based standards	To provide new knowledge e.g. to set or change clinical standards	Inform specific questions on a theme relating to practice or policy
METHODS	No allocation to treatment groups Audit cycle: identify areas of non-conformity with evidence-base, implement practice change strategy and reaudit	Pre-specified research designs with hypotheses	Clear sampling methods, with reasonable response rate (>40%)
DATA ANALYSIS	Simple statistics (e.g. means, frequencies) to compare audit cycles	Requires data analysis (quantitative or qualitative) to make inferences	Simple descriptive statistics
ETHICAL APPROVAL	Not required – this is part of good clinical practice	Required	Not required unless e.g. patient questionnaires considered outside routine management
SAMPLE SIZE	Sufficient number of cases to influence practice based on findings	Statistically powered calculation	Sufficient size to avoid sampling bias, and for survey to have wider generalizable message.
OUTCOME	Strategies in place to improve clinical practice	Improved knowledge	Lead to clinical effectiveness strategy (e.g.

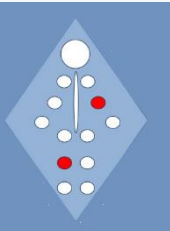


# What can you audit?

- **THE STRUCTURE OF CARE:** *eg Resources e.g. availability of ACPAC therapist*
- **THE PROCESS OF CARE:** *eg. Wait times for potential new RA to be seen in clinic*
- **THE OUTCOME OF CARE:** *e.g. Are immunosuppressed patients vaccinated appropriately?*

# THE AUDIT CYCLE





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## Clinical audit

Clinical audits are a way in which to measure and improve the quality of clinical care. This impact toolkit provides suggestions on specific musculoskeletal topic areas for audit – each section includes relevant standards and guidelines to audit performance against and actions to be taken in order to implement the audit.

- [Gout](#)
- [Low back pain](#)
- [Osteoarthritis](#)
- [Osteoporosis](#)
- [Polymyalgia rheumatica](#)
- [Rheumatoid arthritis](#)
- [Corticosteroids](#)
- [DMARDs](#)
- [NSAIDs](#)
- [Hospital-prescribed drugs](#)
- [Investigations](#)

## Guidance on clinical audit process

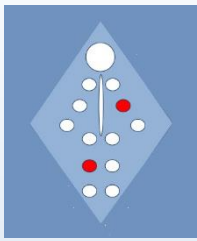
The diagram below gives an overview of the audit cycle

### Information for:

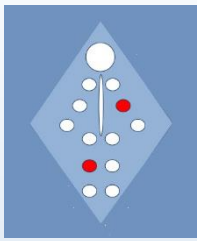
- > [People with arthritis](#)
- > [Health professionals and students](#)
- > [Researchers](#)
- > [Fundraisers](#)
- > [Policy makers](#)

### Other sections in this impact toolkit:

- [Significant event audit \(SEA\) suggestions](#)
- [Case review suggestions](#)

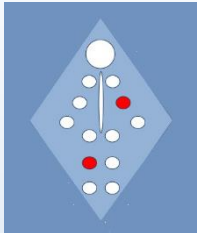


# **Clinical audit of infection and vaccination status monitoring and recording in patients with inflammatory arthritis in a rheumatology clinic.**



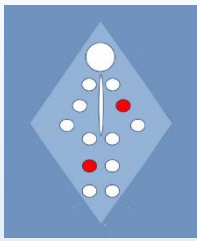
# ***Aims/objectives***

- To determine if infection and vaccination status were
  - elicited during regular clinical encounters and
  - clearly recorded in the electronic medical record (EMR) for patients with inflammatory arthritis.



# Is this important?

.... data show that compliance with screening and prophylactic therapy for those with LTBI is linked to a lower incidence of TB reactivation

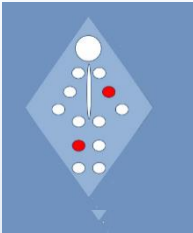


Data used by the CRA from observational studies demonstrated

“a reduction in hospital admissions and mortality from influenza and pneumonia in elderly patients with rheumatic diseases who received the influenza vaccine”

Audit standard	Adherence goal (%)
1. Patients with an inflammatory arthritis on biologic therapy should have had a risk factor assessment for TB, and the results should be clearly recorded in the EMR.	100
2. Patients with an inflammatory arthritis on biologic therapy should have had a Mantoux skin test for LTBI, and the results should be clearly recorded in the EMR.	100
3. Patients with an inflammatory arthritis on biologic therapy should have had a chest X-ray for LTBI, and the results should be clearly recorded in the EMR.	100
	Adherence goal (%)
4. Patients with an inflammatory arthritis should have had their Hepatitis B serology checked, and the results clearly recorded on the EMR.	100
5. Patients with an inflammatory arthritis should have had their Hepatitis C serology checked, and the results clearly recorded on the EMR.	100

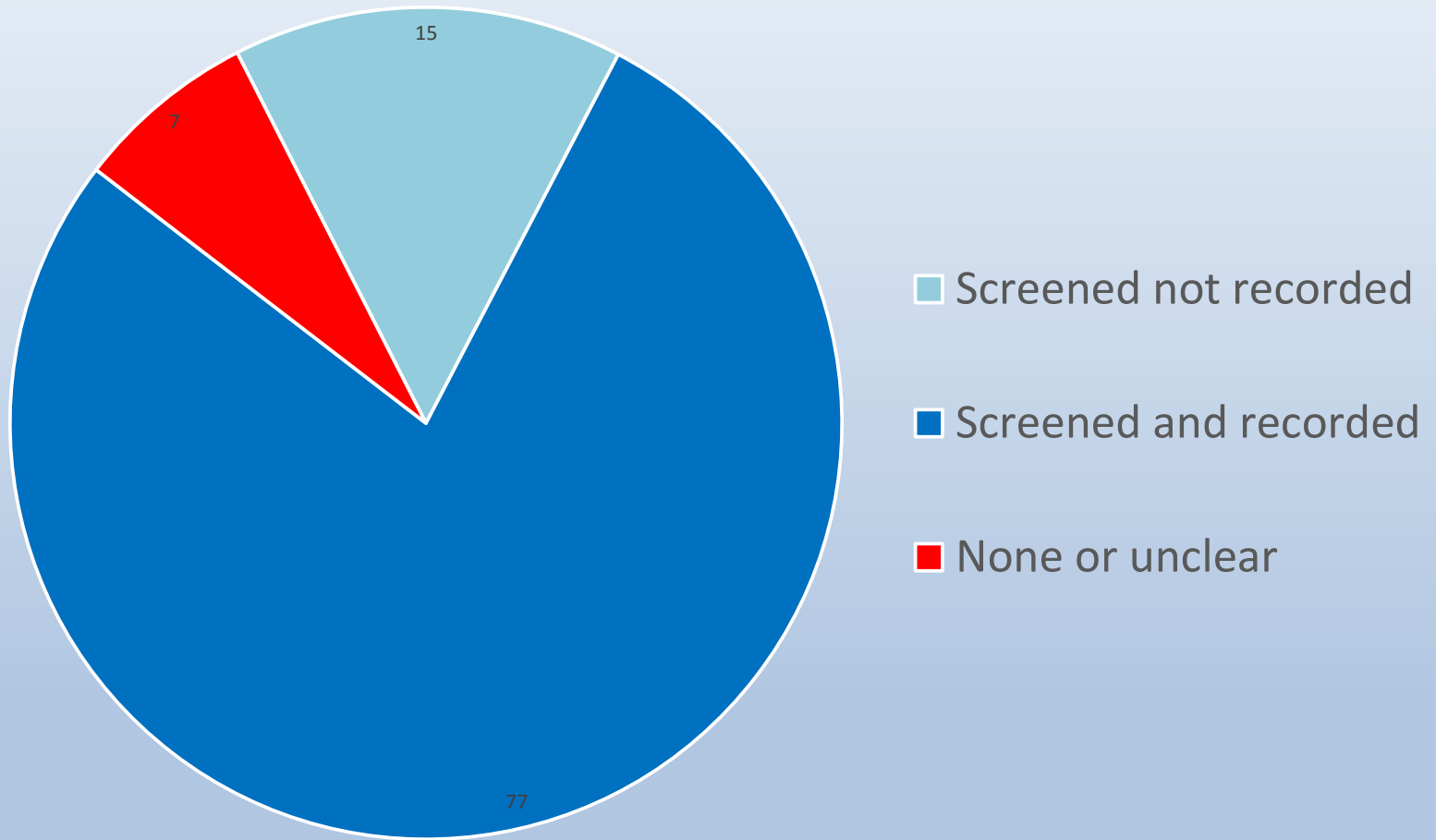
Audit standard	Adherence goal (%)
6. Patients with an inflammatory arthritis should be counseled on the influenza vaccine yearly, and their vaccination status should be clearly recorded in the EMR.	80
7. Patients with an inflammatory arthritis should be counseled on the pneumococcus vaccine, and their vaccination status should be clearly recorded in the EMR.	80
8. Patients with an inflammatory arthritis, who are above 60 or at high risk for shingles, should be counseled on the herpes zoster vaccine, and their vaccination status should be clearly recorded in the EMR.	80



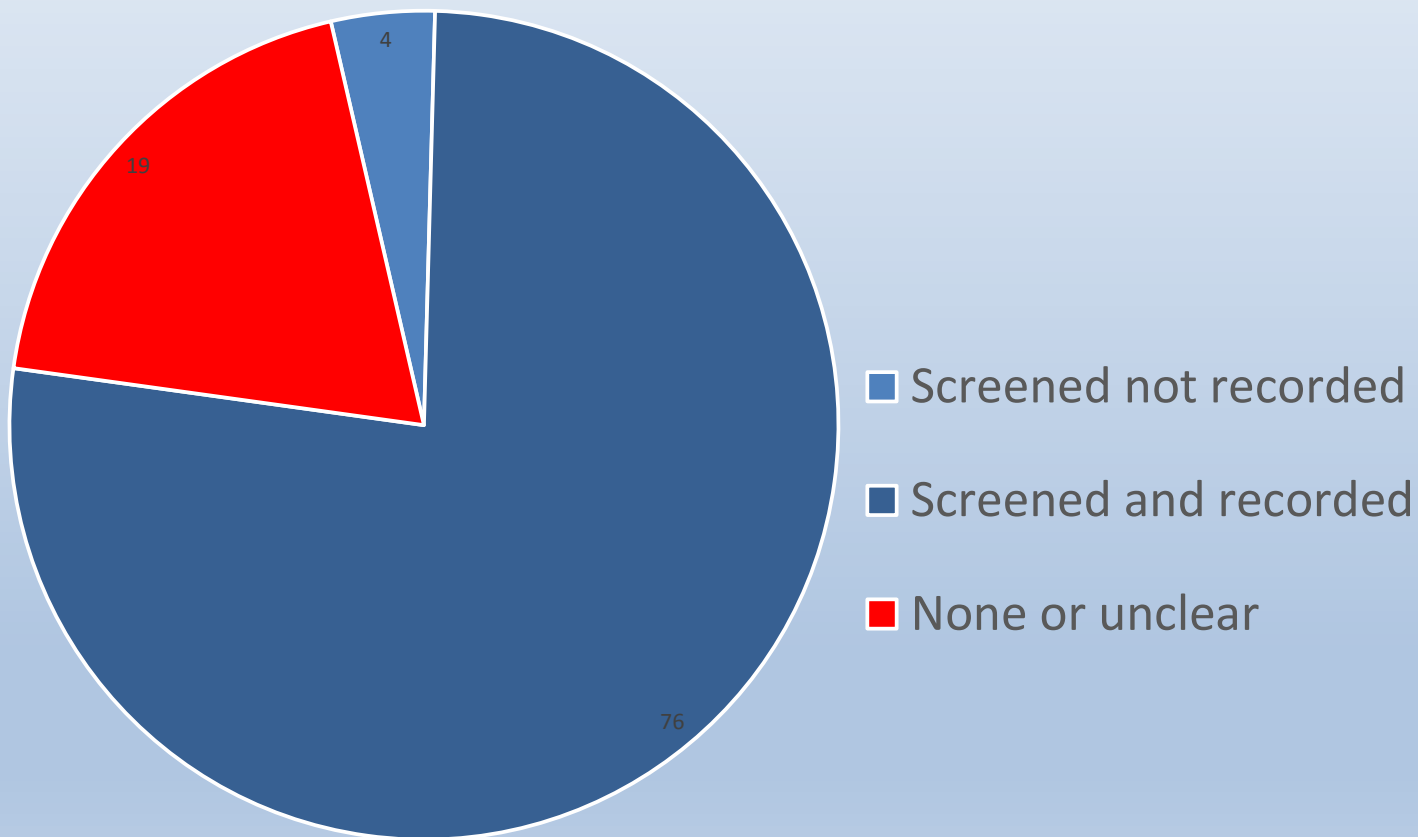
# Clinical Audit Questionnaire

Date		Demographic #		Sex	
Diagnoses	<input type="checkbox"/> RA <input type="checkbox"/> PsA <input type="checkbox"/> Other inflammatory arthropathy	Current meds to manage RA (check all that apply)	<input type="checkbox"/> Traditional DMARDs <input type="checkbox"/> Biologics <input type="checkbox"/> Prednisone		
<b>VACCINATIONS</b>					
What is the status of their childhood vaccinations? If not complete -> reason why:		<input type="checkbox"/> Not complete   not discussed/not recorded <input type="checkbox"/> Not complete   discussed and discussion recorded <input type="checkbox"/> Complete   not recorded <input type="checkbox"/> Complete   recorded <input type="checkbox"/> Unsure			
Is the patient vaccinated for pneumococcus? If not complete -> reason why:		<input type="checkbox"/> Not complete   not discussed/not recorded <input type="checkbox"/> Not complete   discussed and discussion recorded <input type="checkbox"/> Complete   not recorded <input type="checkbox"/> Complete   recorded <input type="checkbox"/> Unsure			
Is the patient vaccinated for influenza in the past 12 months? If not complete -> reason why:		<input type="checkbox"/> Not complete   not discussed/not recorded <input type="checkbox"/> Not complete   discussed and discussion recorded <input type="checkbox"/> Complete   not recorded <input type="checkbox"/> Complete   recorded <input type="checkbox"/> Unsure			
Is the patient at high risk for zoster infection, or above 60y?		<input type="checkbox"/> Yes <input type="checkbox"/> No			
If yes, have they had a zoster vaccination? If not complete -> reason why:		<input type="checkbox"/> Not complete   not discussed/not recorded <input type="checkbox"/> Not complete   discussed and discussion recorded <input type="checkbox"/> Complete   not recorded <input type="checkbox"/> Complete   recorded <input type="checkbox"/> Unsure			
<b>HEPATITIS B AND C</b>					
Has the patient been screened for Hep B, and is it recorded in the EMR?	<input type="checkbox"/> Not screened	<input type="checkbox"/> Screened but not recorded	<input type="checkbox"/> Screened and recorded	<input type="checkbox"/> Unsure	
Has the patient been screened for Hep C, and is it recorded in the EMR?	<input type="checkbox"/> Not screened	<input type="checkbox"/> Screened but not recorded	<input type="checkbox"/> Screened and recorded	<input type="checkbox"/> Unsure	
Is the patient at high risk for Hep B?		<input type="checkbox"/> Yes <input type="checkbox"/> No			
If yes, have they had a Hep B vaccination? If not complete -> reason why:		<input type="checkbox"/> Not complete   not discussed/not recorded <input type="checkbox"/> Not complete   discussed and recorded <input type="checkbox"/> Complete   not recorded <input type="checkbox"/> Complete   recorded <input type="checkbox"/> Unsure			
<b>TUBERCULOSIS</b>					
For patients on biologics, screening for LTBI:					
Which tests have been completed?		Check if clearly recorded			
<input type="checkbox"/> Hx/Px <input type="checkbox"/> Mantoux <input type="checkbox"/> CXR		<input type="checkbox"/> Hx/Px <input type="checkbox"/> Mantoux <input type="checkbox"/> CXR			
Comments					

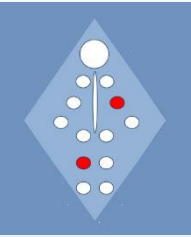
# Hepatitis B screening when indicated

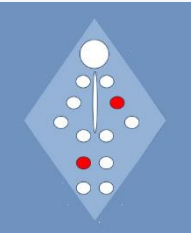


# Hepatitis C screening when indicated

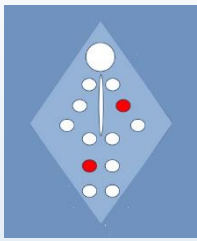


# Recording Influenza vaccination status



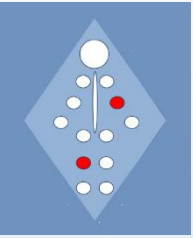


- There was a complete spectrum of adherence to the defined standards
- TB screening was close to target though Mantoux recorded less frequently than CXR, and specific history of (eg of contact etc) not recorded uniformly



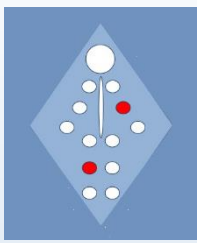
# Other observations

- The minority or respondents appeared to have robust systems in place to record these data
- “Inheriting” patients is a key time for data to become vague
- Accessing old charts
- This changed behaviour



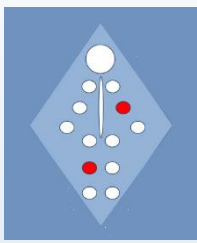
# Does it lead to change in clinical behavior?

Half the respondents stated that the audit had led to an immediate change in at least 50% of the patients audited



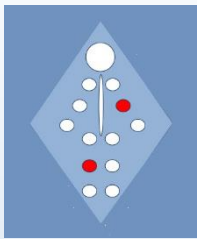
# WORKSHOP

- How to present and share
  - Audits (ie design standards, forms)
  - Data to inform best practice (eg solutions)
- What is the role of the CRA – is this something we should advocate for?
  - Individuals versus Groups
  - Sticks and carrots (eg Section 3 versus practice assessment)
  - How do we “sell” this

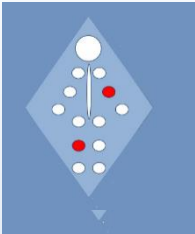


# Workshop

- Role of IT versus paper
  - Can or should we put these forms on to the web
    - Security of data
    - Linking or not to EMRs
    - (ie a survey monkey type of design for collecting individual and group responses)
- Barriers to clinical audit



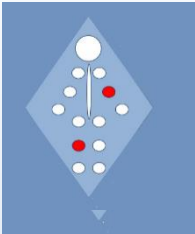
Would pairing up of audit participants act as an incentive for defining the change and re-auditing?



Type	Measuring Instruction	Value	Observation Date (yyyy-mm-dd)	Comments
CV Diabetes	<input checked="" type="radio"/> Diabetes	<input type="text"/>	2014-8-7	<input type="text"/>
CV Hyperlipidemia	<input checked="" type="radio"/> Hyperlipidemia	<input type="text"/>	2014-8-7	<input type="text"/>
CV Hypertension	<input checked="" type="radio"/> Hypertension	<input type="text"/>	2014-8-7	<input type="text"/>
CV Smoking	<input checked="" type="radio"/> Smoking	<input type="text"/>	2014-8-7	<input type="text"/>
GI Age over 65	<input checked="" type="radio"/> Age over 65	<input type="text"/>	2014-8-7	<input type="text"/>
GI Anti coagulant use	<input checked="" type="radio"/> Anti coagulant use	<input type="text"/>	2014-8-7	<input type="text"/>
GI ASA use	<input checked="" type="radio"/> ASA use	<input type="text"/>	2014-8-7	<input type="text"/>
GI History of ulcer	<input checked="" type="radio"/> History of ulcer	<input type="text"/>	2014-8-7	<input type="text"/>
GI NSAID use	<input checked="" type="radio"/> NSAID use	<input type="text"/>	2014-8-7	<input type="text"/>
GI SSRI use	<input checked="" type="radio"/> SSRI use	<input type="text"/>	2014-8-7	<input type="text"/>
Inf Flu shot in past year	<input checked="" type="radio"/> Flu shot in past year	<input type="text"/>	2014-8-7	<input type="text"/>
Inf HepB serology done	<input checked="" type="radio"/> HepB serology done	<input type="text"/>	2014-8-7	<input type="text"/>
Inf HepC serology done	<input checked="" type="radio"/> HepC serology done	<input type="text"/>	2014-8-7	<input type="text"/>
Inf Pneumococcus vaccine done	<input checked="" type="radio"/> Pneumococcus vaccine done	<input type="text"/>	2014-8-7	<input type="text"/>
Inf TB CXR	<input checked="" type="radio"/> TB CXR done	<input type="text"/>	2014-8-7	<input type="text"/>
Inf TB Mantoux done	<input checked="" type="radio"/> TB Mantoux done	<input type="text"/>	2014-8-7	<input type="text"/>
Inf TB Risk factors assessed	<input checked="" type="radio"/> TB risk factors assessed	<input type="text"/>	2014-8-7	<input type="text"/>
Inf Zoster vaccine discussed	<input checked="" type="radio"/> Zoster vaccine discussed	<input type="text"/>	2014-8-7	<input type="text"/>
OP BMD done within 5 years	<input checked="" type="radio"/> BMD done within 5 years	<input type="text"/>	2014-8-7	<input type="text"/>
OP Family history	<input checked="" type="radio"/> Family history of OP	<input type="text"/>	2014-8-7	<input type="text"/>
OP More than 3 EtOH drinks per day	<input checked="" type="radio"/> More than 3 EtOH drinks per day	<input type="text"/>	2014-8-7	<input type="text"/>
OP Previous fracture	<input checked="" type="radio"/> Previous fracture	<input type="text"/>	2014-8-7	<input type="text"/>

Cancel

Submit



# Patient Medication Safety Review

Aug. 7th, 2014 12:06

<b>Name</b> Test Test	<b>Gender</b> Male	<b>DOB</b> 1 January, 1960
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<b>DMARDs:</b> <ul style="list-style-type: none"><li>• Methotrexate</li><li>• Hydroxychloroquine (Plaquenil)</li></ul>	<b>Biologics:</b> <ul style="list-style-type: none"><li>• Etanercept (Enbrel)</li></ul>	<b>NSAIDs:</b> <ul style="list-style-type: none"><li>• Ibuprofen (Advil, Motrin)</li></ul>	<b>Steroids:</b> <ul style="list-style-type: none"><li>• Prednisone</li></ul>
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In an average month, how often do you think you fail to take your rheumatologic medication as prescribed?	"3-5 times"
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<b>DMARDs Risk Factors</b>	Yes	No
Patient getting bloodwork as recommended		X
Patient getting eye screening as recommended		X
Patient aware of antibiotic use while on methotrexate	X	

<b>CV Risk Factors</b>	Yes	No
Diabetes		X
Hyperlipidemia	X	
Hypertension	X	
Smoking		X

<b>GI Risk Factors</b>	Yes	No	Comments
ASA Use		X	
History of ulcer		X	
Antidepressant use		X	
Anticoagulant use		X	
Kidney Disease	X		
Liver Disease	X		

<b>DMARD and Biologic Risk Factors</b>	Yes	No	Comment
Patient is aware of medication adjustments during infection or prior to surgery	X		
Patient aware of guidelines re: vaccines	X		
Influenza vaccine in past year	X		
Pneumococcus vaccine		X	
Zoster vaccine		X	

<b>Infection Risk Factors</b>	Yes	No	Comments
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