

The drugs don't work, if the patients don't take them!

Improving patient adherence

Duncan McRobbie

Ass. Chief Pharmacist - Clinical Services and Cardiothoracic Lead Pharmacist, GSTFT, London

Reader in Cardiac Pharmacy, KCL School of Pharmacy

Visiting Professor, UCL School of Pharmacy

Guy's and St Thomas' 
NHS Foundation Trust



Disclosures

Duncan McRobbie has received consultancy and speaker fees from a Boeringher, Bayer, Daiichi Sankyo and Pfizer.

Duncan McRobbie has received research grants from sanofi and Bayer.

How big is the problem?

Medicines cannot be effective if patients do not use them

There are varying estimates on the size of the problem:

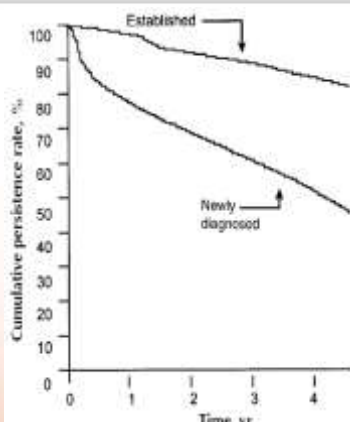
- Between 33% and 50% of medicines for LTCs are not used as recommended
- 20-30% don't adhere to regimens that are curative or relieve symptoms
- 30-40% fail to follow regimens designed to prevent health problems

Poor adherence has significant consequences to clinical outcomes for patients

Poor adherence has a significant economic impact

Adherence is difficult to measure and even more difficult to ensure

Adherence to new medication for chronic conditions



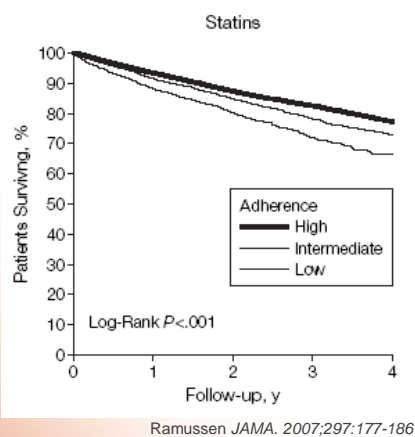
Capro JJ *et al* CMAJ 1999;160:31-7

Table 2 Adherence to new medication

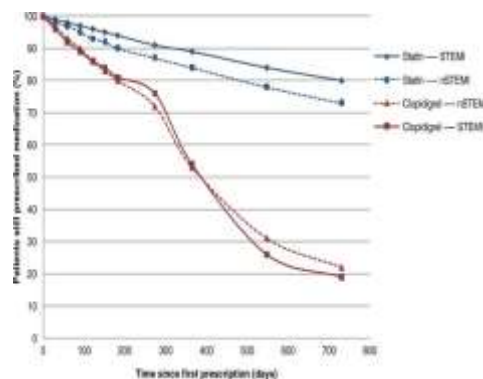
	Still taking medication at 10 days (n= 226/ 239)	Still taking medication at 4 weeks (n= 171/ 197)
Adherent	159 (70%)	128 (75%)
Non-adherent	67 (30%)	43 (25%)
Partial non-adherence	49	26
Complete non-adherence	18	17

Barber *et al*, Qual Saf Health Care 2004;13:172-175.

Relationship Between Adherence and Long-term Mortality After AMI



Ramussen JAMA. 2007;297:177-186



Death and non-fatal MI (first year post discharge)

	Total	STEMI	NSTEMI
Clopidogrel;	18.15%	11.69%	22.42%
No clopidogrel:	36.69%	23.55%	48.42%

Boggon , EHJ, August 2011

Adherence

“Best practice advice on how to involve patients in decisions about prescribed medicines and how to support adherence”

Communication e.g. adapting consultation style

Increasing patient involvement e.g. avoid assumptions about preferences

Understanding the patient's knowledge, beliefs and concerns about medicines e.g. ask if patient has any specific concerns

Providing information

NCCPC The National Collaborating Centre for Primary Care

Medicines Adherence: involving patients in decisions about prescribed medicines and supporting adherence

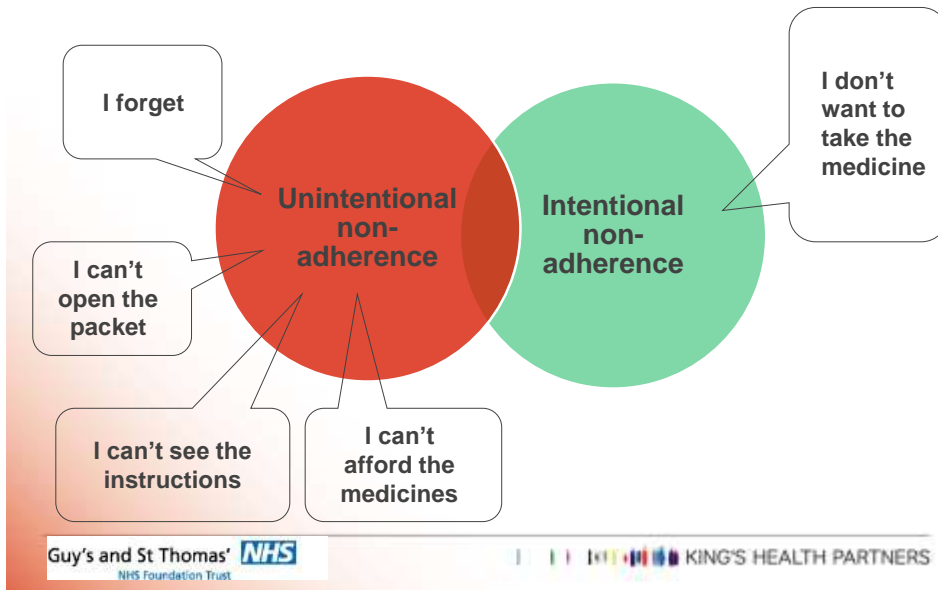
Full Guideline
January 2009

National Collaborating Centre for Primary Care

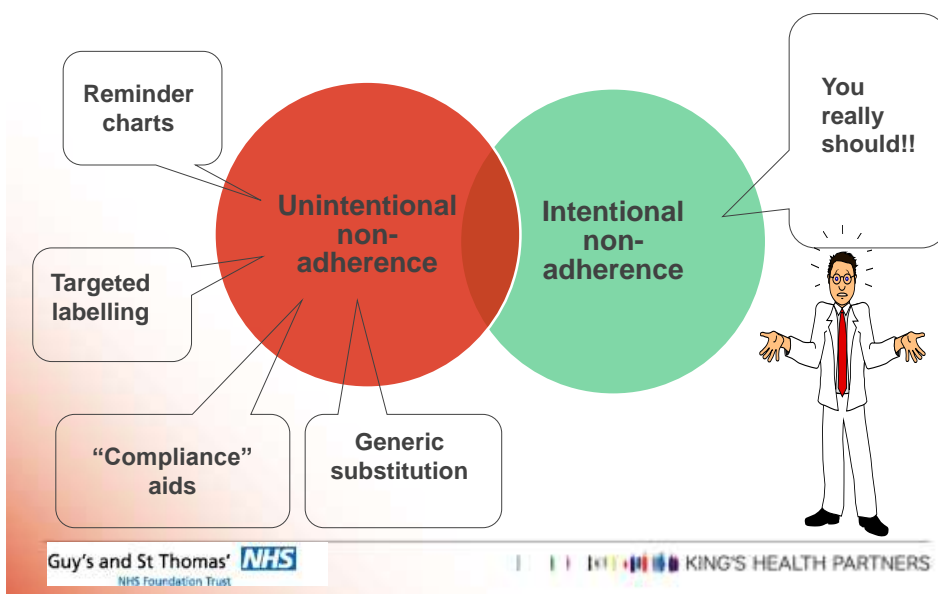
RCGP Royal College of General Practitioners

NICE (Clinical Guideline 76)

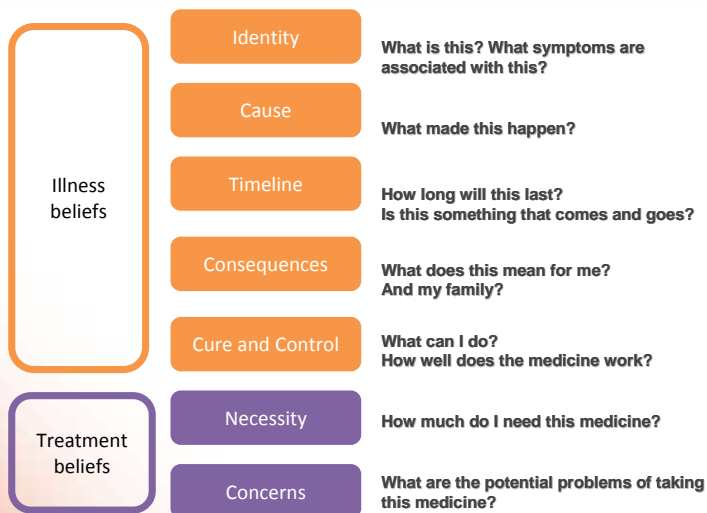
Categories of non-adherence



Pharmacists engagement with non-adherence

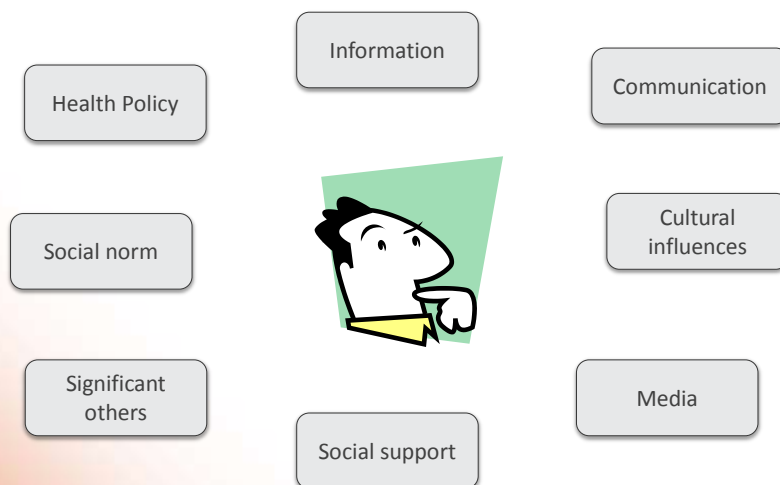


Addressing intentional non-adherence Understanding patients' illness and treatment beliefs



Hagger & Orbell (2003), *Psychol Health* 18: 141-184

Influences on beliefs



Satisfaction with information provided

- Low satisfaction with information about medicines is associated with non-adherence to medicine (Aikens, 2009; Bowskill, 2007; Horne, 2001)

Quality in Health Care 2001;10:133-140 139

Papers

The Satisfaction with Information about Medicines Scale (SIMS): a new measurement tool for audit and research

R Horne, M Haskins, R Jenkins

Abstract
Objective—To develop and evaluate the psychometric properties of the Satisfaction with Information about Medicines Scale (SIMS), a new 7-item tool designed to assess the extent to which patients feel they have received enough information about prescribed medicines.
Methods—Patients from eight diagnostic categories were recruited at hospitals in London and Brighton and completed the

also—the example, the dose, route of administration, and details of action to be taken in the event of missed doses or accidental overdose—and a listing of all contraindications, precautions, and side effects.
 Simply providing written information in a standardized form, however, does not guarantee the appropriate use of medications. Rather, the provision of information should be tailored to meet the needs of the individual. Although a certain minimum level of basic information is

Positive correlation between self-reported adherence and SIMS

Guy's and St Thomas' NHS Foundation Trust

KING'S HEALTH PARTNERS

SIMS: Action and Usage

1. What your medicine is called
2. What your medicine is for
3. What it does
4. How it works
5. How long it will take to act
6. How you can tell if it is working
7. How long you will need to be on your medicine
8. How to use your medicine
9. How to get a further supply

Horne et al Quality in Health Care, 2001

SIMS: Potential problems

10. Whether the medicine has any side effects
11. What are the risks of you getting side effects
12. What you should do if you experience side effects
13. Whether you can drink alcohol whilst taking this medicine
14. Whether the medicine interferes with other medicines
15. Whether the medication will make you feel drowsy
16. Whether the medication will affect your sex life
17. What you should do if you forget to take a dose

Home et al Quality in Health Care, 2001

Satisfaction with information received

ACTION & USAGE (% of total)	Too much	About right	Too little	None received	None needed	% Satisfied
1. What your medicine is called	3	78	4	2	13	91
2. What your medicine is for	2	80	3	2	13	93
3. What it does	1	75	8	1	15	90
4. How it works	2	62	13	8	15	77
5. How long it will take to act	0	53	12	15	20	73
6. How you can tell if it is working	0	44	12	20	24	68
7. How long you will need to be on your medicine	0	69	6	10	15	84
8. How to use your medicine	0	76	1	4	19	95
9. How to get a further supply	0	63	4	7	26	89

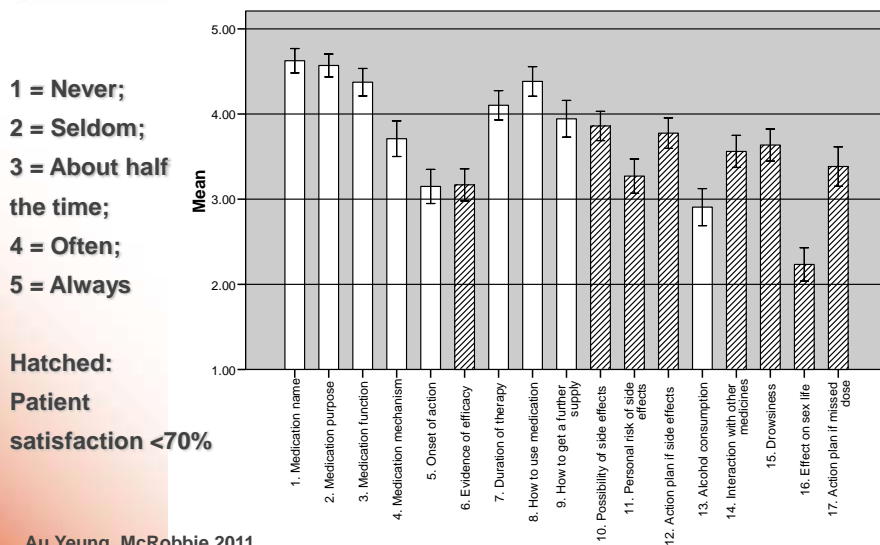
n=117 cardiac patients at GSTT

Satisfaction with information received

POTENTIAL PROBLEMS (% of total)	Too much	About right	Too little	None received	None needed	% Satisfied
10. Whether the medicine has any side effects	2	41	16	15	26	67
11. What are the risks of you getting side effects	3	35	20	19	23	58
12. What you should do if you experience side effects	1	37	19	20	23	60
13. Whether you can drink alcohol whilst taking this medicine	1	36	7	24	36	72
14. Whether the medicine interferes with other medicines	0	40	13	23	23	63
15. Whether the medication will make you feel drowsy	1	42	10	25	24	66
16. Whether the medication will affect your sex life	2	16	6	35	41	57
17. What you should do if you forget to take a dose	1	41	14	22	22	63

n=117 cardiac patients at GSTT

“When you counsel patients, how often do you discuss...”



Au Yeung, McRobbie 2011

Improving satisfaction

Empowering patients (it is OK to ask questions about your medicines)

Targeting information provision to patients needs (rather than telling them what we think they need to know)

Signposting to other information sources (questions about medicines may arise after discharge from hospital)



This leaflet explains the different types of questions you can ask about your medicines during your stay in hospital.

There may have been some changes to the medicines you usually take when you are at home e.g. a change in the dose. Or perhaps you have been prescribed medicines that are new to you.

With such changes, you may have some questions or concerns about your medicines.

The following pages show a list of questions that other patients have asked about their medicines.

Questions about what your medicines are and what they do:

- What is my medicine called?
- What is my medicine for?
- What does the medicine do?
- How does it work?
- How long will it take to act?
- How can I tell if it is working?

Questions about using your medicines:

- How long will I need to be on my medicine?
- What's the best way to take my medicine?
- How do I get a further supply?
- What should I do if I forget to take a dose?

Questions about side effects:

- Does the medicine have any side effects?
- What are the risks of the side effects?
- What should I do if I experience side effects?

Questions about how medicines may affect your everyday life:

- Can I drink alcohol while taking this medicine?
- Will the medicine interfere with my other medicines or supplements?
- Will the medicine make me feel drowsy?
- Will the medicine affect my sex life?

Most members of staff should be able to answer these questions. However if you have specific concerns about cardiac medicines, please ask to speak to one of our specialist cardiac pharmacists.

Write down any questions you would like to ask the hospital pharmacist in the box on the next page. These may be from the list or you may have questions of your own.

If you have any questions or concerns about your medicines when you are at home, please contact:

Guy's and St Thomas' Pharmacy Medicines Helpline:
020 7 908 5000
(9am-5pm Monday-Friday)

Questions or concerns I have about my medicines	Further information
_____	<p>Patient information and liaison service (PALS) - To comment on the Trust's services, or raise concerns, please contact PALS. Ask a member of staff to direct you to PALS or:</p> <p>t: 020 7188 8501 at St Thomas' t: 020 7188 8503 at Guy's e: pals@gstt.nhs.uk</p> <p>Knowledge & Information Centre (KIC) For more information about health conditions, support groups and local services: t: 020 7188 3415 e: ki@gstt.nhs.uk</p> <p>Language support services - If you need an interpreter or information about your care in a different language or format, please contact us by: t: 020 7188 8815 fac: 020 7188 5953 e: language.support@gstt.nhs.uk</p> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> <p>Contact us For more information about our services visit the Trust website www.guysandstthomas.nhs.uk switchboard: 020 7188 7188 Guy's and St Thomas' NHS Foundation Trust St Thomas' Hospital, Westminster Bridge Road, London SE1 7EH Guy's Hospital, Great Maze Pond, London SE1 9RT</p> </div> <p><small>© 2010 GUY'S AND ST THOMAS' NHS FOUNDATION TRUST. All rights reserved. FRAMING 2008 Date for review: July 2013</small></p>

Effect of the “Questions about your medicines” leaflet.

Action and Usage		Too much	About right	Too little	None received	None needed	% Satisfied	% improvement in satisfaction	% change in “None needed” T0-T1
1. What your medicine is called.	T0	4	84	4	3	7	91	8	-5
	T1	0	87	2	0	12	99		
2. What your medicine is for.	T0	3	87	3	2	6	93	5	-4
	T1	0	88	2	0	10	98		
3. What it does.	T0	2	80	9	2	9	89	8	-3
	T1	0	85	2	2	12	97		
4. How it works.	T0	2	65	45	9	10	75	12	-3
	T1	0	74	6	7	13	87		

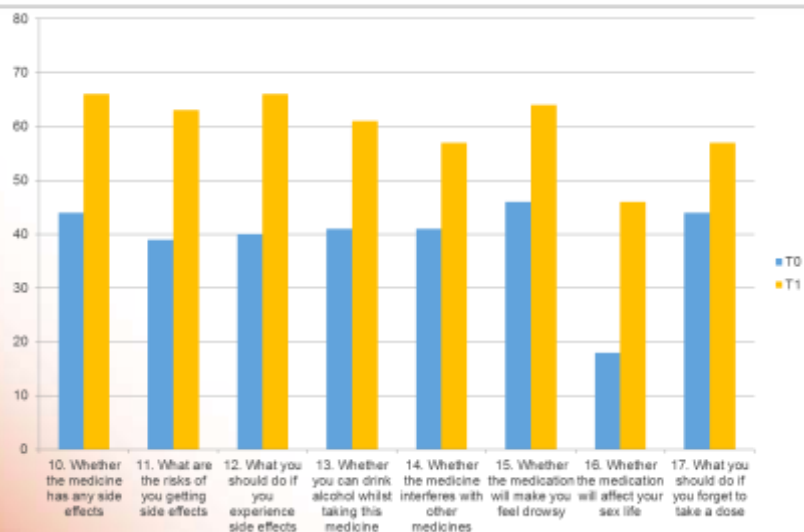
Data from Baseline service evaluation (n = 117) and with QAM leaflet (n = 114)

Effect of the “Questions about your medicines “leaflet.

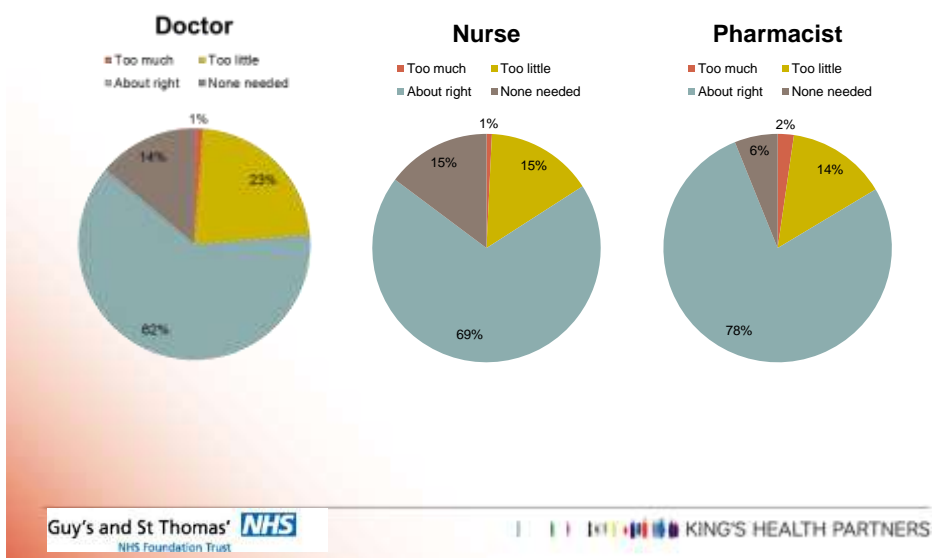
Action and Usage		Too much	About right	Too little	None received	None needed	% Satisfied	% improvement in satisfaction	% change in “None needed” T0-T1
5. How long it will take to act.	T0	0	56	12	16	15	71	5	0
	T1	0	61	12	11	15	76		
6. How you can tell if it is working.	T0	0	46	13	22	20	66	11	6
	T1	0	63	7	16	14	77		
7. How long you will need to be on your medicine.	T0	0	74	6	10	10	84	3	0
	T1	1	77	3	10	10	87		
8. How to use your medicine.	T0	0	83	0	3	13	96	0	1
	T1	0	85	1	2	12	96		
9. How to get a further supply	T0	0	69	3	7	22	91	5	5
	T1	1	79	3	1	14	96		

Data from Baseline service evaluation (n = 117) and with QAM leaflet (n = 114)

Potential Problems: Increase in ‘About right’



Did you get enough information from the...



Discontinuation rates in NOAC trials

		Year 1	Warfarin	Year 2	Warfarin	TTR
Dabigatran 150	Rely ¹	15.5%	10.2%	21.2%	16.6%	64%
Dabigatran 110	Rely ¹	14.5%	10.2%	20.7%	16.6%	64%
Rivaroxaban	Rocket AF ²	NR	NR	23.7%	22.2%	55%
Apixaban	Aristotle ³	NR	NR	25.3%	27.5%	62%

1. Connolly SJ *et al.* *N Engl J Med* 2009;361:1139-5;
2. Patel MR *et al.* *NEJM* 2011;365:883-91
3. Granger *et al.* *N Eng J Med* 2011;365:981-92.

A multi-centre study of patients' satisfaction with information on anticoagulants

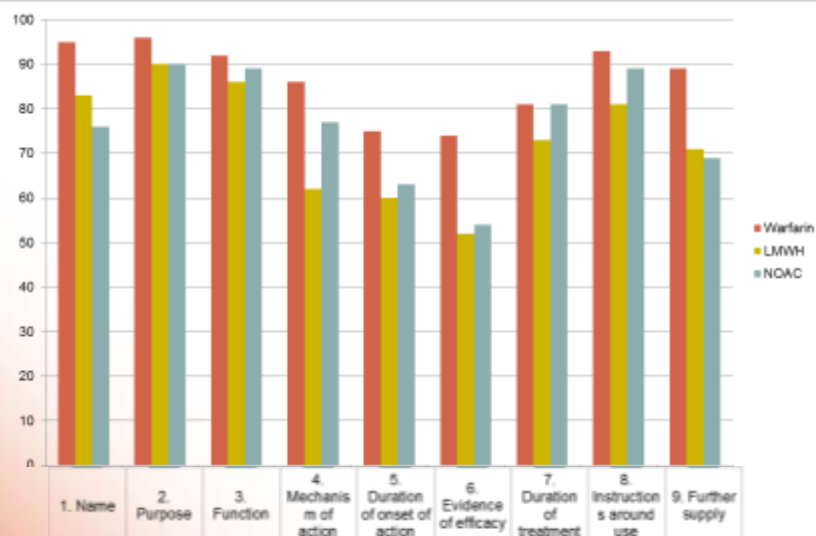
9 sites
n=320
Warfarin = 166
LMWH = 58
NOAC = 96



Guy's and St Thomas' NHS
NHS Foundation Trust

KING'S HEALTH PARTNERS

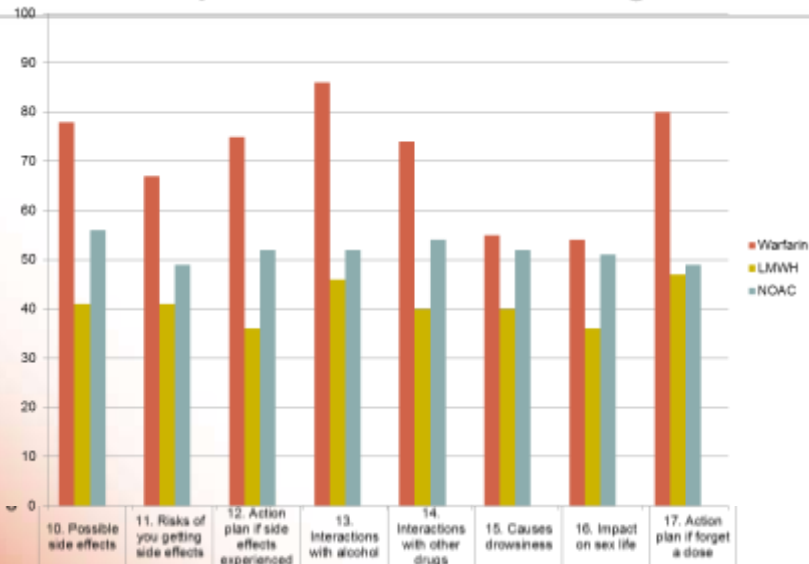
SIMS Action & usage scores for anticoagulants



Guy's and St Thomas' NHS
NHS Foundation Trust

KING'S HEALTH PARTNERS

SIMS Potential problems scores for anticoaguants



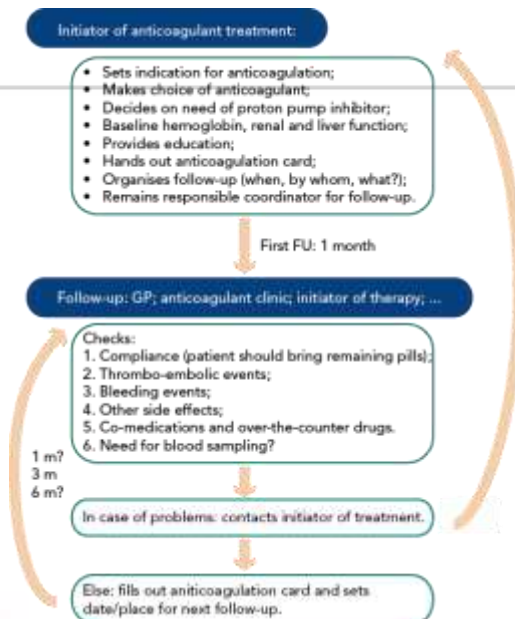
Guy's and St Thomas' NHS Foundation Trust

KING'S HEALTH PARTNERS

Structured initiation and follow up for NOAC

EHRA Practical Guide on the use of new oral anticoagulants in patients with non-valvular atrial fibrillation.

Heidbuche et al. EHJ 34: 2094-106 (2013)



Guy's and St Thomas' NHS Foundation Trust

KING'S HEALTH PARTNERS

Discussion

NOACs represent a significant benefit for patients

However, they represent increasing challenges for assuring adherence

Assuring adherence is multimodal, complex and time consuming

- Communication e.g. adapting consultation style
- Increasing patient involvement e.g. avoid assumptions about preferences
- Understanding the patient's knowledge, beliefs and concerns about medicines e.g. ask if patient has any specific concerns
- Providing information

This brief intervention appears to improve patient satisfaction with information about medicines

- "too little" may indicate a training need for pharmacy staff
- "non received" may indicate a service need or a training need (we choose not to communicate with them!)

Eliquis®
(apixaban)

Patient
Alert Card

5 mg and 2.5 mg twice daily



Guy's and St Thomas' **NHS**
NHS Foundation Trust

KING'S HEALTH PARTNERS

Conclusion

The medicines can't work if the patients don't take them!

Pharmacists tend to focus on un-intentional non adherence (and do this well!)

Unintentional
non-
adherence

Intentional
non-
adherence

Intentional non-adherence more difficult

Patients perception of necessity for the medicines and concerns about using medicines can increase intentional non adherence

Pharmacists may be ideally placed to discuss these with patients

Need to ensure staff are appropriately trained to deal with patients information needs (or refer when appropriate)

Need to identify ways of ensuring time allocated for dealing with patients information needs about medicine.

Guy's and St Thomas' **NHS**
NHS Foundation Trust

KING'S HEALTH PARTNERS

Acknowledgements

Dr Vivienne Au Yeung, Health Psychologist, KCL

John Weinman, Professor of Health Psychology, KCL

Imran Hafiz, Cardiac Pharmacist at GSTT and team

Pharmacists in the 9 sites who collected information for the multisite study and Bayer who provided an unrestricted grant to support this.

Guy's and St Thomas' 
NHS Foundation Trust

 KING'S HEALTH PARTNERS

 KING'S HEALTH PARTNERS

An Academic Health Sciences Centre for London

Pioneering better health for all

The drugs don't work, if the patients don't take them! Improving patient adherence

Duncan McRobbie

Ass. Chief Pharmacist - Clinical Services and Cardiothoracic Lead Pharmacist, GSTFT, London

Reader in Cardiac Pharmacy, KCL School of Pharmacy

Visiting Professor, UCL School of Pharmacy

Guy's and St Thomas' 
NHS Foundation Trust

 KING'S COLLEGE LONDON

Guy's and St Thomas' 

King's College Hospital 

South London and Maudsley 