

Community Pharmacy Warfarin Re-audit Report

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Introduction

In response to a series of reports of patient safety incidents involving anticoagulants, the National Patient Safety Agency (NPSA) issued guidance in order to help reduce potential harm to patients taking anticoagulants (March 2007). One area of care where potential harm can be prevented is at the dispensing of the anticoagulant by the community pharmacist. The community pharmacist has an opportunity at this point to observe the care and monitor the understanding of the patient. This improves compliance with treatment and helps to prevent harmful incidents occurring.

Details of Audit

An audit was carried in Summer 2008 with the aim of increasing the safety of patients being dispensed oral anticoagulant therapy from community pharmacies. The audit showed that:

- Compliance with the audit standards was good in all areas except for patients bringing their yellow book when collecting their prescription.
- The percentage of staff dispensing Warfarin who had targeted training needed to be improved.
- 48% of patients have alternate daily dose regimes which are not recommended by the NPSA.
- Pharmacists were aware of interacting medication or food for most patients.
- There was good correlation between the responses from the pharmacies and the patients, suggesting pharmacists were aware of the requirements of their patients.
- Only 49% of patients had an anti-coagulant card. It may be appropriate for pharmacists to provide this useful aide for patients.

The results of the audit were presented at three pharmacy clinical governance evenings. Discussion at these events highlighted that alternate daily dose regimes were used by one of the local anti-coagulation services as an alternative to using half tablets. Many pharmacists also commented that they did not have anti-coagulant cards available to give to the patients.

The recommendations from the audit were:

1. Ensure all staff who are involved in dispensing Warfarin have targeted training in this area.
2. Continue to remind patients and carers of the importance of bringing the yellow book / INR sheet when collecting a Warfarin prescription.
3. Ensure the patient / carer is asked about interacting medication or food, and that they are given appropriate advice.
4. Disseminate results to the anticoagulation services in Cambridgeshire for review and action, highlighting the areas where their practice differed significantly from the average.

Re-audit

A re-audit was carried out in Autumn 2008. This was designed to:

- Review the areas where the initial audit showed poor compliance with standards
- Focus on some areas of the audit where further clarification would be useful
- Further explore the training, knowledge and understanding of individual pharmacists

Because the patient and pharmacist questionnaires gave very similar results, only data from pharmacists was collected for the re-audit.

The re-audit also took into account some of the issues raised at the clinical governance evenings which staff from the local anticoagulation services attended. Some questions were been left out, where the audit showed good compliance, and others were expanded.

The re-audit had two sections:

1. A form to be completed by all pharmacists in the pharmacy – one form for each pharmacist.
2. A form to be completed by pharmacists for all patients / carers presenting a Warfarin prescription at the pharmacy.

These forms are given in appendix 1.

Re-audit Results

A summary of the results of the re-audit are given below, with comparisons with the audit figures where available. Further details of the results are given in appendix 2.

There are three different anti-coagulation services in the county covering Cambridge City and South Cambridgeshire (CCSC), East Cambridgeshire and Fenland (ECF) and Huntingdonshire (Hunts). Results for these areas are show separately in appendix 2 and any significant differences are highlighted in the summary.

The re-audit was completed by 86 pharmacies (89 for the audit) with 195 pharmacists returning questionnaires about their practice. 886 patient questionnaires were completed by pharmacists, compared with 931 questionnaires for the audit.

Pharmacist Questionnaire

85% of pharmacists said there was written documentation to support staff in dispensing Warfarin in the pharmacy. This was mainly paper guidelines and SOPs. Some pharmacists said the NPSA guidance was available. 17% said the guidance was available electronically. One pharmacy has a Warfarin question sheet available for all staff.

54% of pharmacists said they had extra training to cover the NPSA competencies and 20% said they already met the competencies. However, 25% said they had not had extra training, particularly in CCSC (30%) and Hunts (29%).

Nearly all pharmacists were aware what action to take when a patient mentioned an unexpected bleed, an interacting medicine or a missed dose of Warfarin.

80% of pharmacists had access to the telephone number of the local anti-coagulation service. This percentage was lowest in CCSC where only 75% of pharmacists were aware of this.

Patient Questionnaire

84% of staff involved in dispensing the prescription had extra training on Warfarin therapy. This is an increase from the percentage recorded for the audit of 71%. This improvement was particularly noticeable in ECF where the percentage who had extra training increased from 52% to 91%.

The Warfarin prescription was collected by the patient in 72% of cases. The pharmacist had an opportunity to discuss the therapy with 55% of patients who had not attended themselves.

The percentage of patients or carers bringing their Warfarin record when collecting their prescription had increased from 46% for the audit to 52% for the re-audit. The increase was most significant in Hunts where 62% had their record compared with 50% for the audit. The percentage for CCSC remained low at 38% (35% for the audit).

92% of the Warfarin records contained an up-to-date INR result. The percentage of records without an INR remained higher in CCSC (16%).

Where the Warfarin record or latest INR result was not available, the pharmacists said they asked the patient or carer to bring the record or result when collecting their next prescription. Some pharmacists had access to the latest INR via EMIS. For 14 patients, the pharmacist contacted the patient by phone or asked the patient to phone the pharmacy with their results.

Pharmacists asked 73% of patients if they were taking any other medicines or foods that interact with Warfarin and if they had changed any of their medication.

53% of pharmacists had asked the patient if they understood the risks and benefits of taking Warfarin on the day the prescription was collected, with 6% sending a message about this issue with the carer. 31% had not asked on this day but had asked in the previous year. For 10% of patients, the pharmacist had not asked the patient within the last year. This varied from 13% in CCSC to 6% in Hunts.

There was a range of action taken by the pharmacists when they felt the patient did not understand the risks and benefits. These included asking the patient to return for a more detailed discussion, providing additional written information and carrying out a Medicines Usage Review (MUR). A template of questions to ask warfarin patients during a MUR had been given to community pharmacists at the clinical governance training evenings.

Summary

- The PCT-directed audit for community pharmacists for 2008/09 focused on the dispensing of oral anticoagulation therapy by community pharmacists.
- The audit standards were based on the NPSA guidance on anticoagulation which aims to reduce potential harm to patients
- The initial audit showed compliance with the standards was good in all areas except for patients bringing their Warfarin record when collecting their prescription. The percentage of staff dispensing Warfarin who had targeted training also needed to be improved.
- The re-audit focused on the areas where the initial audit showed poor compliance with standards and where further clarification was required. It also explored the training, knowledge and understanding of individual pharmacists
- There are three different anti-coagulation services in the county covering Cambridge City and South Cambridgeshire (CCSC), East Cambridgeshire and Fenland (ECF) and Huntingdonshire (Hunts). The results of the audit and re-audit were analysed by area to determine if there were any significant differences between these.
- In the re-audit

- 85% of pharmacists said there was written documentation to support staff in dispensing Warfarin in the pharmacy.
- 25% of pharmacists said they had not had extra training in the NPSA competencies for Warfarin (30% in CCSC and 29% in Hunts). However, 84% of all staff involved in dispensing the prescription had extra training on Warfarin therapy, an increase from 71% for the audit. (ECF increased from 52% to 91%).
- 96% of pharmacists were aware what action to take when a patient mentioned an unexpected bleed, an interacting medicine or a missed dose of Warfarin.
- 80% of pharmacists had access to the telephone number of the local anti-coagulation service (75% in CCSC).
- 52% of patients or carers brought their Warfarin record when collecting their prescription (46% for the audit). Hunts showed the largest increase from 50% to 62%. CCSC remained low at 38% (35% for the audit).
- 92% of the Warfarin records contained an up-to-date INR result. The percentage of records without an INR remained higher in CCSC (16%).
- Pharmacists asked 73% of patients if they were taking any other medicines or foods that interact with Warfarin and if they had changed any of their medication.
- 90% of patients had been asked whether they understood the risks and benefits of taking Warfarin within the last year. This varied from 87% in CCSC to 94% in Hunts.

Recommendations

1. Congratulate the pharmacists for the improvements shown between audit and re-audit.
2. For community pharmacists and anti-coagulation services to continue to remind patients and carers of the importance of bringing their Warfarin record and latest INR result when collecting a Warfarin prescription.
3. To develop closer working between anti-coagulation services and community pharmacists in order to help further reduce potential harm to patients taking anticoagulants.
4. Ensure all patients are asked if they understand the risk and benefits of taking Warfarin. The frequency of this question will vary by patient but should be at least once a year.

Appendix 1 – Questionnaires

1. Questionnaire for each pharmacist

Pharmacy Stamp

Pharmacy.....

OR

Location.....

This questionnaire looks at the practice of individual pharmacists in managing Warfarin therapy for patients. Each pharmacist should complete, and return to the PCT. The questionnaire is identified only by pharmacy, not by individual pharmacist.

1a Does the pharmacy you are working in today have written documentation to support staff in dispensing Warfarin therapy Yes No

1b If 'yes, please give format of information (eg paper guidelines, website page)

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2 Have you had extra training to ensure you meet the NPSA competencies for dispensing Warfarin therapy Yes No Already meet competencies

(Work competence on dispensing oral anticoagulants available at: www.npsa.nhs.uk/health/alerts.)

3 Are you aware of the action to take when dispensing Warfarin if:

i) a patient tells you they have had an unexplained bleed Yes No

ii) a patient tells you about an interacting medicine Yes No

iii) a patient tells you they have missed some doses of Warfarin Yes No

4 Do you have access to the telephone number of the local anti-coagulation service Yes No

Please return this form by **10 October 2008** to:

Sue Nellis, CACE Facilitator, Cambridgeshire Primary Care Trust, Nightingale Court, Ida Darwin, Fulbourn, Cambridgeshire, CB21 5EE.

2. Questionnaire for each patient

Pharmacy Stamp

Pharmacy.....

OR

Location.....

1 Date of dispensing.....

2a Have the members of staff involved in dispensing this prescription had extra training on Warfarin therapy? Yes No

2b If 'no', what advice / support was available for the dispenser?
.....

3a Was the prescription picked up by i) Patient ii) Carer

iii) The patient's representative iv) Pharmacy delivers prescription

3b If not picked up by patient, have you had an opportunity to discuss the Warfarin therapy with the patient? Yes No

4a Did the patient, carer or representative have the Yellow Warfarin record book or INR record sheet with them? Yes No

4b If 'Yes': was an up-to-date INR result recorded? Yes No

4c If book and / or latest INR not available, what action did you take?
.....

5a Did you ask if the patient was taking any other medicines or foods that interact with Warfarin? Yes No

5b Did you ask if the patient had changed any of their medication Yes No

6a Have you asked the patient if they understand the risks and benefits of taking Warfarin?

i) Yes, asked today ii) Yes, asked within last year

iii) Message sent with carer today iv) No, not asked

6b If patient does not understand, what action did you take to inform the patient?
.....

Please return this form by **10 October 2008** to:

Sue Nellis, CACE Facilitator, Cambridgeshire Primary Care Trust, Nightingale Court, Ida Darwin, Fulbourn, Cambridgeshire, CB21 5EE.

Appendix 2 – Detailed Results

Does the pharmacy you are working in today have written documentation to support staff in dispensing Warfarin therapy?	Overall		CCSC		ECF		Hunts	
Yes	164 / 192	85%	68 / 80	85%	55 / 61	90%	41 / 51	80%
No	28 / 192	15%	12 / 80	15%	6 / 61	10%	10 / 51	20%
Not answered	2		0		2		0	

Have you had extra training to ensure you meet the NPSA competencies for dispensing Warfarin therapy?	Overall		CCSC		ECF		Hunts	
Yes	117 / 216	54%	45 / 88	51%	41 / 90	46%	31 / 51	61%
No	54 / 216	25%	26 / 88	30%	13 / 90	14%	15 / 51	29%
Not answered	1 / 216	0%	0 / 88	0%	13 / 90	14%	1 / 51	2%
Already meet competencies	44 / 216	20%	17 / 88	19%	23 / 90	26%	4 / 51	8%
Not answered	1		0		0		1	

Are you aware of the action to take when dispensing Warfarin if:	Overall		CCSC		ECF		Hunts	
i) a patient tells you they have had an unexplained bleed?								
Yes	187 / 193	97%	78 / 80	98%	62 / 63	98%	47 / 50	94%
No	6 / 193	3%	2 / 80	3%	1 / 63	2%	3 / 50	6%
Not answered	0	0%	0		0		0	
ii) a patient tells you about an interacting medicine?								
Yes	191 / 191	100%	78 / 78	100%	63 / 63	100%	50 / 50	100%
No	0 / 191	0%	0 / 78	0%	0 / 63	0%	0 / 50	0%
Not answered	14		5		6 /		3	
iii) a patient tells you they have missed some doses of Warfarin								
Yes	172 / 180	96%	71 / 75	95%	53 / 57	93%	48 / 48	100%
No	8 / 180	4%	4 / 75	5%	4 / 57	7%	0 / 48	0%
Not answered	2		1		0		1	

Do you have access to the telephone number of the local anti-coagulation service?	Overall		CCSC		ECF		Hunts	
Yes	148 / 185	80%	55 / 73	75%	51 / 62	82%	42 / 50	84%
No	37 / 185	20%	18 / 73	25%	11 / 62	18%	8 / 50	16%
Not answered	7		6		0		1	

Have the members of staff involved in dispensing this prescription had extra training on Warfarin therapy?	Overall		CCSC		ECF		Hunts	
Yes	730 / 865	84%	298 / 349	85%	245 / 268	91%	187 / 248	75%
No	135 / 865	16%	51 / 349	17%	23 / 268	9%	61 / 248	25%
Not Answered	27		7		8		12	

Was the prescription picked up by:	Overall		CCSC		ECF		Hunts	
i) Patient	635 / 877	72%	255 / 347	73%	192 / 268	72%	188 / 262	72%
ii) Carer	65 / 877	7%	27 / 347	8%	26 / 268	10%	12 / 262	5%
iii) The patient's representative	173 / 877	20%	65 / 347	19%	46 / 268	17%	62 / 262	24%
iv) Pharmacy delivers prescription	4 / 877	0%	0 / 347	0%	4 / 268	1%	0 / 262	0%

If not picked up by patient, have you had an opportunity to discuss the Warfarin therapy with the patient?	Overall		CCSC		ECF		Hunts	
Yes	103 / 186	55%	49 / 90	54%	22 / 51	43%	32 / 45	71%
No	83 / 186	45%	41 / 90	46%	29 / 51	57%	13 / 45	29%
Not answered	67		26	29%	18		23	

Did the patient, carer or representative have the Yellow Warfarin record book or INR record sheet with them?	Overall		CCSC		ECF		Hunts	
Yes	464 / 887	52%	134 / 350	38%	166 / 274	61%	164 / 263	62%
No	423 / 887	48%	216 / 350	62%	108 / 274	39%	99 / 263	38%
Not Answered	13		6		2		5	
If 'Yes' was an up-to-date INR result recorded?	Overall		CCSC		ECF		Hunts	
Yes	421 / 458	92%	129 / 153	84%	150 / 156	96%	142 / 149	95%
No	37 / 458	8%	24 / 153	16%	6 / 156	4%	7 / 149	5%
Not Answered	36		12		13		11	

Did you ask if the patient was taking any other medicines or foods that interact with Warfarin?	Overall		CCSC		ECF		Hunts	
Yes	648 / 889	73%	242 / 358	68%	211 / 272	78%	195 / 259	75%
No	241 / 889	27%	116 / 358	32%	61 / 272	22%	64 / 259	25%
Not Answered	8		2		4		2	

Did you ask if the patient had changed any of their medication?	Overall		CCSC		ECF		Hunts	
Yes	633 / 862	73%	233 / 339	69%	215 / 271	79%	185 / 252	73%
No	229 / 862	27%	106 / 339	31%	56 / 271	21%	67 / 252	27%
Not Answered	24		13		5		6	

Have you asked the patient if they understand the risks and benefits of taking Warfarin?	Overall		CCSC		ECF		Hunts	
i) Yes, asked today	472 / 896	53%	159 / 350	45%	150 / 278	54%	163 / 268	61%
ii) Yes, asked within last year	279 / 896	31%	125 / 350	36%	83 / 278	30%	71 / 268	26%
iii) Message sent with carer today	57 / 896	6%	21 / 350	6%	19 / 278	7%	17 / 268	6%
iv) No, not asked	88 / 896	10%	45 / 350	13%	26 / 278	9%	17 / 268	6%

If patient does not understand, what action did you take to inform the patient?

- Additional info given to pt about food & medicines that interact with Warfarin.
- Additional info sent with pt's representative.
- Advised in detail
- Booked MUR for further discussion at length.
- Discussed new script for Triniprarnine, having INR next week.
- Gave a leaflet + asked them to come back or phone if needed anything clarifying.
- Given verbal information (wasn't able to determine exact condition we are treating)
- I explained the notes and benefits.
- Leaflet put in bag with medication.
- Leaflet put in bag with medication.
- Liase closely with surgery as patient has learning disabilities.
- Patient came in for MUR recently.
- Patient fully explained, benefits, precautions, D.I's and dramatic lifestyle change effect.
- Patient had them for long time + knows all.
- Patient hard to understand, but he is knowledgeable on INR.
- Patient memory problems. Patient's carer will remind all carers advice.
- Patient regularly visits GP and pharmacy.
- Patient returning next day to discuss.
- Patient unable to read. Surgery/Pharmacy inform verbally and via dosett box.
- Patient understands fully.
- Patient was nurse - fully knowledgeable.
- Patient's representative confirmed patient's understanding.
- Printed and verbal info, referred to anticoag clinic to obtain folder and warranty card.
- Problem asking questions because Lithuanian pt was going to come back with grandson who could understand English but didn't return.
- Pt very aware of risks and benefits.
- Reinforced importance of taking advice re medication/foods.
- Sent info about food & medicines that interact with Warfarin.
- Supplied additional info.
- Supplied info from website!
- Understanding not good. Did in depth M.U.R
- Wasn't fully aware of possible food & drink interactions as he sometimes collects from another chemist. Printed off info from NPSA website + asked hi to inform other pharmacists that he was having Warfarin prior to dispensing.