

# TCAM

- Transfer of Care Around Medicines
- Those most at risk of medication errors may not be highlighted to Community Pharmacy e.g. those recently discharged from hospital.

- It is estimated that 60% of patients have three or more changes made to their medicines during a hospital stay.
- The transfer of care process is associated with an increased risk of adverse effects
- 30-70% of patients experience unintentional changes to their treatment or an error is made because of a lack of communication or miscommunication.
- Only 10% of elderly patients will be discharged on the same medication that they were admitted to hospital on.
- and 20% of patients have been reported to experience adverse events within 3 weeks of discharge, 60% of which could have been ameliorated or avoided

# CLINICAL HANDOVER – INTEGRATED TRANSFER OF CARE

Community Pharmacy and Hospital  
Pharmacy - working together to optimise  
the use of medicines

*New transfer of care initiative of electronic  
referral from hospital to community pharmacy  
in England:*

*a formative service evaluation*

*Hamde et al. BMJ Open October 2016*

*“statistically significant lower rates  
of readmissions and shorter hospital stays”*

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## BMJ Open New transfer of care initiative of electronic referral from hospital to community pharmacy in England: a formative service evaluation

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**ABSTRACT**  
**Objectives:** To evaluate an electronic patient referral system from one UK hospital Trust to community pharmacies across the North East of England.  
**Setting:** Two hospital sites in Newcastle-upon-Tyne and 207 community pharmacies.  
**Participants:** Inpatients who were considered to benefit from on-going support and continuity of care after leaving hospital.  
**Intervention:** Electronic transmission of an information related to patient's medicines to their nominated community pharmacy. Community pharmacists to provide a follow-up consultation tailored to the individual patient needs.  
**Primary and secondary outcomes:** Number of referrals made to and received by different types of pharmacies; reasons for referrals; accepted/completed and rejected referral rates; reasons for rejections by community pharmacists; time to action referrals.  
**Results:** 2029 inpatients were referred over a 15-month period (1 July 2014–31 July 2015). Only 31% (n=619) of these patients participated in a follow-up consultation; 47% (n=955) of referrals were rejected by community pharmacists with the most common reason being 'patient was uncontactable' (35%, n=138). Most referrals were accepted/completed within 7 days of receipt and most rejections were made <2 weeks after referral receipt. Most referred patients were over 60 years of age and referred for a Medicines Use Review (MUR) or enrolment for the New Medicines Service (NMS). Those patients who received a community pharmacist follow-up consultation had statistically significant lower rates of readmissions and shorter hospital stays than those patients without a follow-up consultation.  
**Conclusions:** Hospital pharmacy staff were able to use an information technology (IT) platform to improve the coordination of care for patients transitioning back home from hospital. Community pharmacists were able to contact the majority of patients and results indicate that patients receiving a follow-up consultation may have lower rates of readmission and shorter hospital stays.

**Strengths and limitations of the study**

- This study provides a detailed description of how an electronic referral system between hospital and community pharmacies across the North East of England was implemented.
- This study demonstrates that inpatients can be effectively referred to their nominated community pharmacist and receive a follow-up consultation tailored to their needs after discharge from the hospital.
- The study demonstrates that routine data collection during this evaluative period requires critical analysis and additional qualitative work to understand fully the operational and implementation aspects of the service, for example, complex reasons for the recorded rates of non-completion of referrals.
- There are no routinely recorded data at the community pharmacist follow-up consultation to allow specific economic, clinical or humanistic outcomes to be determined. However, service continual improvements are being made towards achieving this.
- A well-structured clinical trial of this intervention is required to investigate the impact on patients as they transition between healthcare settings.

**INTRODUCTION**  
The continuity of patient care when transitioning from one healthcare setting to another is a national priority.<sup>1</sup> A range of interventions have been designed, trialled and tested to improve the quality and safety of this transfer process.<sup>2–6</sup> Successful interventions have incorporated activities such as medication reconciliation; quick, clear and structured discharge summaries; discharge planning; follow-up between hospital and

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BMJ

# NEWCASTLE STUDY.....



Review of first 2,029 in-patients who were referred showed...

Although only 31% (n=619) of these patients participated in a follow-up consultation, those patients who received a community pharmacist follow-up consultation had significantly lower rates of readmissions and shorter hospital stays than those patients without a follow-up consultation.

PharmOutcomes<sup>®</sup> - Supporting hospital referrals

## Integration methodology – Business as usual model

- Utilises the current messaging functionality within the hospital
- Provides a secure N3 receiving service
- Uses web-based technology in community pharmacy to capture outcomes

## Integration methodology

Step 1 – Agree and match fields to send to community pharmacy on discharge

APAT - Admit Patient

Patient: Dale Cooper

Hospital No. National No. 9434785919 Date of Birth 1954-04-19

Admission Ward: Hinton Ward

Admit Date/Time: 24-08-2017 13:40

Admit Reason:

Consultant: DIANNE, Ms Dianne

Admission Type:  Planned  Emergency

Patient Type: NHS Adult Patient

Spell Number: Episode Number:

Select Patient Patient Details Admit Cancel Admission Cancel Close Help

PATALGY - Patient Allergy Maintenance

Patient: Dale Cooper

Record Status:    Allergy  Sensitivity

Search: Allergen Reaction Add

Allergy Description	Reaction
clarithromycin	Shortness of breath
gabapentin	Pruritis
FACTOR IX	Acute Kidney Injury

Sensitising Agent	Reaction
fenbufen	Blurred Vision
acenocoumarol	Fever/Flu-like symptoms
ibandronic acid	Bleeding
GELATIN AND GELATIN DERIVATIVES	Malignant Hyperthermia

Allergy / Sensitivity History Other Allergy Maintenance Remove Allergy Save Close Help

## Integration methodology - Medicines list and free text

TTA - Discharge Medications

Date Cooper

Consultant: MS DIANNE DIANNE Ward: HINTON

Hospital No. Nat No. 9434765919 Date of Birth 1954-04-19 Age yrs Height cm Weight kg BSA sq m

**Details** Allergies: clarithromycin, gabapentin, FACTOR IX  
Sensitivities: fenbufen, acenocoumarol, ibandronic acid, GELATIN AND GELATIN DERIVATIVES

Status	Drug Name	Dose	Frequency	Route	BNF
	ATORVASTATIN 40 mg Tablets	40 mg	1XD ON - ONCE a DAY at NIGHT	oral	Cardiovascular system
	FERROUS SULPHATE 200 mg Tablets	200 mg	3XD AMLUPM - THREE times a oral	oral	Nutrition and blood
	HYDROXYMELLOSE 0.3 % w/v Eye Drops	1 Drop(s)	WHEN REQ - When required F affected eye(s)		Eye
	LEVOTHYROXINE 100 micrograms Tablets	100 microgram	1XD AM - ONCE a DAY in the l oral	oral	Endocrine system
	LEVOTHYROXINE 25 micrograms Tablets	25 microgram	1XD AM - ONCE a DAY in the l oral	oral	Endocrine system
	LEVOTHYROXINE 50 micrograms Tablets	50 microgram	1XD AM - ONCE a DAY in the l oral	oral	Endocrine system

Buttons: Discharge Letter, Select for TTA, Conflict Log, Clinical Info, Add Order, Modify Order, Discontinue Order, Print Discharge, Verification, Order Inquiry, Admin Chart, BOE, Help

Discharge Letter Entry

Patient: Dale Cooper

Hospital No. Nat No. Date of Birth 1954-04-19 Ward THE HUB WARD (ZCO)

Admission Date 27-Oct-2016 12:00 Reason  Emergency  Planned

Patient to be aware of diagnoses?  Outpatient Appointment  Planned Discharge Date 28-Oct-2016 Patient to receive copy  Discharge Doctor ABBOTT,DR ROSE

Diagnoses	Transferred Notes
Prescriber contact	Destination
Discharge time/date	Comm. Pharm. Code.
Note to Comm. Pharm.	

The SOP will need to ensure the pharmacy organisation code is included.

Buttons: Ok, Cancel, Help

# PharmOutcomes® - Community Pharmacy follow up

## Referral received

outcomes4health® Delivering Evidence

Home **Services** Assessments Reports Claims Admin Gallery Help

Provide Services

Outstanding Referrals	Service (stage)	Identifiers	User	Status
2016-03-22	Attachment - Followup	SF	Ben Johnson	Referred to you awaiting follow-up action
2016-02-12	Attachment - Followup	AH	Ben Johnson	Referred to you awaiting follow-up action
2016-02-10	Hospital referral provider	CW	Ben Johnson	Accepted
2016-02-10	Hospital referral provider	CW	Ben Johnson	Referred to you awaiting follow-up action
2016-01-26	Attachment - Followup	HJ	Ben Johnson	Referred to you awaiting follow-up action
2015-08-21	Attachment - Followup	JH	Jason Harris	Referred to you awaiting follow-up action
2014-08-26	Hospital referral provider	KN	Jason Harris	Accepted

← New referrals

Recent Provisions

Search for Identifier:

Provisions in date order [-] | Click to show Provisions ordered by most recently entered

Date Order	Service (stage)	Identifiers	User	Status
2016-04-05	Minor Ailments Service - Stage 1 - Registration	JD	Jason Harris	Active
2016-03-25	Stewart Stage 2 Service	LS	Stewart Webb	Active
2016-03-25	Stewart Stage 2 Service	OT	Stewart Webb	Active
2016-03-25	Stewart Stage 2 Service	NW	Stewart Webb	Active
2016-03-25	Stewart Stage 2 Service	EJ	Stewart Webb	Active
2016-03-25	Stewart Stage 2 Service	LS	Stewart Webb	Active
2016-03-25	Stewart Base Service	OT	Stewart Webb	Active
2016-03-25	Stewart Base Service	NW	Stewart Webb	Active
2016-03-25	Stewart Base Service	EJ	Stewart Webb	Active
2016-03-25	Stewart Base Service	LS	Stewart Webb	Active

## Referral actioned

Support required: "Support required": One or more of: NMS; MUR; Medication compliance aid - Continued; Medication compliance aid - New patient, supply agreed; Update medication list for changes; Non child-resistant packaging; Large print labels; ...

Additional comments: Answer to "Additional comments" text box

Hospital team member: Answer to "Hospital team member" single line input

Contact number: Answer to "Contact number" single line input

Discharge summary: Links to "Discharge summary" attachments.

**Acceptance and completion of referred service**

This referral has been made to your organisation. If you are unable to complete the referral, you can reject it, but please state the reason for rejection in the Notes box below. If you cannot complete the referral but cannot complete the associated action immediately, click on the accept button to acknowledge receipt of the referral and make relevant notes in the Notes box.

[Complete now](#) [Accept](#) [Reject referral](#)

number: 01953 / / / 666

Discharge summary: Hospital Discharge Example.pdf

Acceptance and completion of referred service



# PharmOutcomes<sup>®</sup> - Completing the loop

Discharge summary Links to "Discharge summary" attachments.

**Acceptance and completion of referred service**  
Referral Accepted for completion now [Revert and discard changes](#)

Follow up date

**Support services provided**

**Support audit**

- NMS
- MUR
- Medication compliance aid  
Continued
- Medication compliance aid  
New patient - supply agreed
- Update medication list for changes
- Non child-resistant packaging
- Large print labels
- Home delivery service
- Removal of unused medication from patient home
- Stop Smoking Service
- Flu vaccination  
September to March only
- Specialist medicines management service assessment

Tick ALL that have been provided

## Adverse Drug Reaction Outcomes & GP referral

### ADR Outcomes

- No ADR's reported
- Manageable and non-harmful - patient to continue
- Refer to GP

Select from drop down

GP referral necessary  Yes  No

If outcome of ADR requires GP referral select either first or second option below to highlight issue. This will trigger a GP notification that will send securely when data is saved. If no referral necessary select Not Applicable

### GP referral as

- Significant ADR
- Patient stopped taking medicine
- Other

If Other please specify

## Information on next repeat prescription

Did the next repeat prescription from the GP match the hospital discharge letter

If NA is recorded an SMS reminder will be sent to the patient to attend a future appointment so that this can be recorded using follow up stage 2.

Next Repeat matched?  Yes  No  NA

NA if Not Available at the time of intervention

**Yellow Card** AA A Login

Enter Keyword(s) to Search

[Home](#) [About Yellow Card](#) [Downloads](#) [Contact Us](#)

**Welcome to the reporting site for the Yellow Card Scheme**

Report a suspected problem or incident:

- Side effect to a medicine, vaccine, herbal or homeopathic remedy **Side effects**
- Medical device adverse incident **Devices**
- Defective medicine (not of an acceptable quality) **Defective**

**Download the Yellow Card App!**

You can now receive news updates from the MHRA and report side effects to medicines via the Yellow Card app. At the moment you will need to create a separate account on the app to report. Please download it from the [Apple App Store](#), or [Google Play Store](#). If you have any comments on the app please [contact us](#).

**Already Registered?**

If you have already registered with this

# PharmOutcomes<sup>®</sup> - Notifying key stakeholders

Tick all that apply, if Other please specify

**Audit of support provided - Tick all that apply**

**Support services provided**

- Large print labels
- Talking labels
- Easy open tops
- Review dose form
- Review MDS arrangements
- MAR chart provided
- MDS
- Managed repeat
- Home delivery
- Other

Tick ALL that apply, If Other please specify

20 Apr 2016

Violet Patch Pharmacy  
678 A Street in a Town  
Narrow  
EF45 6GH  
0789 123456

GP practice [Selection from "GP Surgeries" lookup list \[From Dorset Hospitals \(RBCH and DCH\) referral\]](#)

The patient named below has been recently discharged from hospital. At a follow up review the patient has reported adverse drug reactions as detailed below

Patient name	Answer to Patient Name
Address	123 Alphabet Road, Broad way [From Dorset Hospitals (RBCH and DCH) referral]
Postcode	AB12 3CD [From Dorset Hospitals (RBCH and DCH) referral]
Date Of Birth	01-Feb-2003 [From Dorset Hospitals (RBCH and DCH) referral]
GP referral as	"GP referral as": One or more of: Significant ADR; Patient stopped taking medicine; Other
Details of ADR	Answer to "Detail of any side effects/ADRs" text box

Pharmacist making report Answer to "Pharmacist Name" single line input

# PharmOutcomes<sup>®</sup>

## **Newcastle Hospital Then**

- Manual Data input
- Number of referrals=1386
- Referral follow up = 36%

## **Newcastle Hospital Now**

- Fully integrated solution
- Number of referrals = 5214
- Referral follow up = 60%

# Next steps

- Timescales
- Implementation
- Pharmacy Actions