

Improving patient access to compression garments: an alternative approach

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Key words

Accuracy, efficiency, quality, safety, value

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Compression garments (hosiery) are a core component of treatment for patients with lymphoedema and chronic oedema (International Lymphoedema Framework, 2006). The key treatment objectives of hosiery include removing oedema, supporting swollen tissue and alleviating symptoms such as aches, heaviness and pain. Garments can be ready-made/off-the-shelf or bespoke/made-to-measure and come in four pressure classes (Lymphoedema Framework, 2009). It is the role of a trained lymphoedema practitioner to determine a patient's requirements, according to his or her clinical need.

Since 2007, hosiery for patients residing in England, Scotland and Wales has been accessed through Part IXA of the *Drug Tariff*, which covers appliances. The process of obtaining hosiery necessitates lymphoedema practitioners writing to the patient's GP with details of the item required. A prescription is generated by the GP and sent to the patient's choice of pharmacy. However, between 2014 and 2015, Lymphoedema Specialist Services Ltd (LSS) staff experienced an unprecedented and growing volume of negative feedback from their patients due to delays and inaccuracies in obtaining hosiery through this route. As

Abstract

Following negative audit findings from patients obtaining hosiery through the drug formulary, local NHS commissioners enabled Lymphoedema Specialist Services Ltd (LSS) to purchase garments directly from hosiery suppliers as part of a compression hosiery ordering project (CHOP). This article describes the rationale for, process involved in and outcomes of CHOP, which commenced in 2015. The three-stage process designed to meet objectives set for the hosiery manufacturer, LSS and NHS service commissioners has benefitted patients, LSS and the NHS. A post-CHOP audit found patients had prompt access to the treatment they needed and found the new system easier to use than the drug formulary route. The percentage of patients experiencing issues dropped from 83% with the drug formulary route to 10% with CHOP. The deal negotiated with the manufacturer led to cost savings for the NHS. Based on the results of CHOP, recommendations are made for practice.

a result, patients' treatment was delayed and LSS's operational efficiency undermined: staff time was taken up calling and/or resending mislaid paperwork to GPs and pharmacists; and scheduled clinic appointments for the fitting of hosiery often needed to be cancelled because items had not arrived. LSS clinical staff members were also aware of a growing consensus of opinion about the system, as other lymphoedema services were reporting similar problems (Davey and Woods, 2017).

Drug Tariff route Audit process

LSS informed the NHS community chief pharmacist and NHS commissioners of about the issues involved in obtaining and fitting hosiery via the *Drug Tariff* route. With their approval, a survey was undertaken in July 2015 of LSS patients who were obtaining hosiery through the *Drug Tariff*. The objective was to determine the impact, type and extent of problems experienced by patients, from a quantitative and qualitative perspective.

A healthcare professional known to LSS was asked to select 150 out of a total of 509 patient files from the LSS patient lymphoedema records store to ensure a random sample of patients was included in the audit. For ethical

reasons, 57 patients' files were excluded from the selection process because of their terminally ill status.

The anonymous questionnaire sent to patients included four questions that were jargon free (for patient ease of understanding), with quantifiable answers. A free box was included at the end of the questionnaire for additional comments.

The questionnaire was attached to a covering letter that was sent to patients outlining the project's purpose. It was requested that the completed questionnaires be returned 3 weeks later. A stamped addressed envelope was included to increase the proportion of completed questionnaires returned.

Findings

One-hundred-and-twelve of the 150 patients invited to participate returned a valid and completed questionnaire, equating to a 75% response rate. No invalid questionnaires were received.

Analysis of the results demonstrated significant inefficiencies with the system of ordering hosiery on prescription (*Table 1*). Almost half of patients had to wait at least 2 weeks to receive their hosiery (*Table 2*). From the patient's perspective, there were

Table 1. Inefficiencies of the drug formulary route.

Inefficiency	Who is impacted	Key issues
Allocative	Patient	Poor patient experience (stress) and time
	LSS	Not receiving what was needed, received the wrong item or nothing at all
Productive	Patient	Slowness in delivery
	LSS	Delay in appointment for hosiery fitting
	NHS	Financial waste: orders lost or wrong items ordered Resource: multiple organisations with their own ordering processes
Clinical	Patient	Treatment delay leads to worsening oedema and associated signs and symptoms
Organisational	Patient	Scheduled appointment cancellations because hosiery unavailable to be fitted
	LSS	Loss of clinical time for staff due to chasing orders
Coordination	Patient and LSS	No single coding directory to enhance accuracy and speed of orders
	NHS	No central organisation for tracking distribution Reduced quality control or auditing of distribution and cost

Table 2. Time to receiving hosiery with the *Drug Tariff*.

Time (days)	Percentage
7 or less	16
8–14	38
15–21	26
>21	20

Table 3. Ease of obtaining hosiery using the *Drug Tariff*.

	Percentage
Very easy	18
Easy	15
Adequate	34
Hard	23
Very hard	10

the process of hosiery supply and purchase in-house. This new consolidated process involved the patient, LSS and a source for the direct supply and purchase of hosiery, with subsequent reimbursement from the NHS upon receipt of the items (*Figure 2*). The system was to be transparent to enable scrutiny (audit) at every stage of the process.

To optimise the process, LSS set out to establish a working partnership with a hosiery manufacturing company. In line with most lymphoedema services, LSS ordered hosiery items from the major manufacturing companies, which all provided LSS with a very good service. LSS chose to work with Medi UK Ltd as it was the only manufacturer that offered free postage of hosiery directly to patients' homes and gave a discount from the current *Drug Tariff* price on all compression items ordered. Subsequent liaison with Medi UK Ltd and NHS commissioners resulted in the identification of objectives for the manufacturer, LSS and the commissioners (*Table 4*).

The compression hosiery ordering project (CHOP) commenced in October 2015. Initially, the lymphoedema practitioners struggled to submit orders to the manufacturer by 4pm each day because of time constraints created by busy outpatient clinics and the extent of the operating adjustment required by clinical staff. To overcome the problem, LSS recruited additional clerical assistance, resulting in the formulation of an ordering, delivery, tracking, purchasing, reconciliation and payment process.

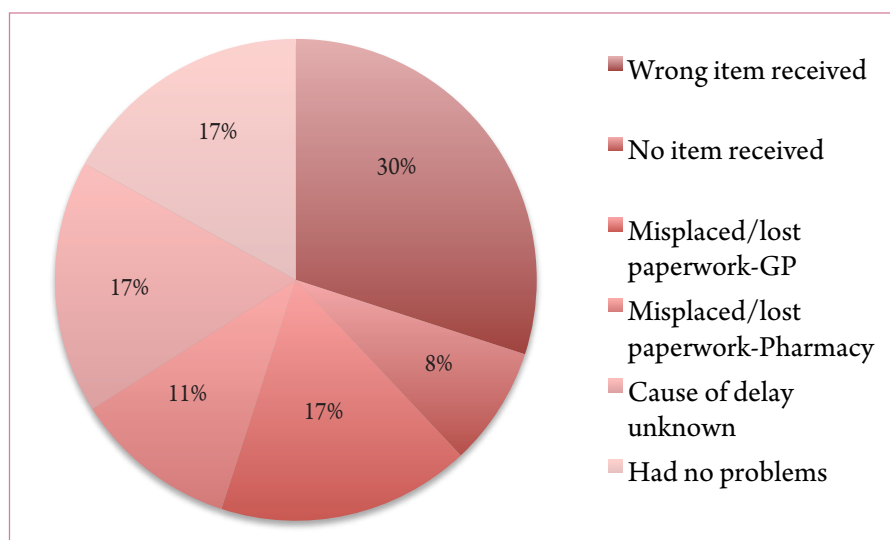


Figure 1. Issues experienced with the *Drug Tariff* prescription route.

an array of problems culminating in delayed access to hosiery (treatment), with 74% of respondents experiencing stress as a result. Economic analysis identified allocative and productive inefficiencies for LSS and the NHS commissioners of the lymphoedema service in relation to quality, safety and value. The audit was undertaken in response to bad verbal feedback and, therefore, the responses supported issues identified prior to audit.

Over four-fifths (83%) of respondents had experienced one or more issues regarding the prescription route, with only 17% reporting a problem-free experience (*Figure 1*). Two-thirds of patients reported the prescription

route to be adequate, hard or very hard to navigate (*Table 3*). Only 33% had experienced easy to very easy access to hosiery.

Changing the system

LSS wanted to improve the process for patients, itself and the NHS. It was unrealistic to amend the prescription route for obtaining hosiery, however, because of the large number of people and organisations (GPs, receptionists and pharmacists) involved across LSSs geographical provision area. With NHS commissioner approval, LSS, therefore, formulated a system that removed the 'middle men' and brought

Table 4. Objectives of the new service for the manufacturer, Lymphoedema Specialist Services Ltd (LSS) and NHS commissioners.

Hosiery manufacturer	LSS Ltd	NHS commissioners
<ul style="list-style-type: none"> • Prompt delivery of hosiery: <ul style="list-style-type: none"> • Next working day for off-the-shelf items (for orders received by 4pm) • 5 working days for custom fit items and 7 working days for very complex garments • All items delivered directly to the patient's address of choice, e.g. home, hospice, nursing home or lymphoedema clinic • Free postage of hosiery to the location of choice specified by the patient • A discount from the prescription price on all items ordered by LSS on behalf of the NHS • Invoicing process with LSS to enable reimbursement 	<ul style="list-style-type: none"> • Hosiery orders sent securely and electronically to the manufacturer through nhs.net • Data recorded methodically: patient name, address, hosiery description, code(s) and quantity • A unique number generated for every order to enable tracking • To obtain (written) patient consent for disclosure of their address to the manufacturer to enable direct home delivery (and automatic delivery to the lymphoedema clinic in the event of consent being declined) • Monthly account tallying with the manufacturer for payment by LSS 	<ul style="list-style-type: none"> • LSS to send hosiery order spreadsheets electronically to the NHS each quarter • LSS to be reimbursed each month pro rata by the NHS • Reconciliation between NHS and LSS at the end of each financial year

Teething problems were quickly resolved because of the direct contact between the two organisations involved. Joint organisational errors in the first month of operation resulted in a 2-week delay in five orders being despatched. The efficiency of the project process was soon apparent, however. Patients were reporting next working day delivery of off-the-shelf items and delivery in 5–7 working days for custom fit items.

Audit of the CHOP route

Process

To measure the impact of the project, in April 2016 — 6 months after the implementation of CHOP — an audit was undertaken. To obtain results that could be compared with the assessment of the *Drug Tariff* route, the audit process was replicated. The same 150 patients were sent the same questionnaires to complete. The anonymisation of the first questionnaire prevented LSS staff from identifying and excluding the 38 non-responders from the follow-up audit, thereby undermining replication.

Findings

One-hundred-and-twenty of the 150 patients returned a valid and completed questionnaire, equating to an 80% response rate. No invalid questionnaires were received.

Compared to the *Drug Tariff* audit, patients reported significant service improvements, with 81% of respondents stating that the process of obtaining their hosiery was completely stress-free. Other efficiencies

benefitting the patients, LSS and the NHS were also identified (*Table 5*).

Delivery times had significantly improved

(*Table 6*), with 98% of patients receiving their hosiery within 2 weeks. Ninety per cent of patients had no issues when using the CHOP

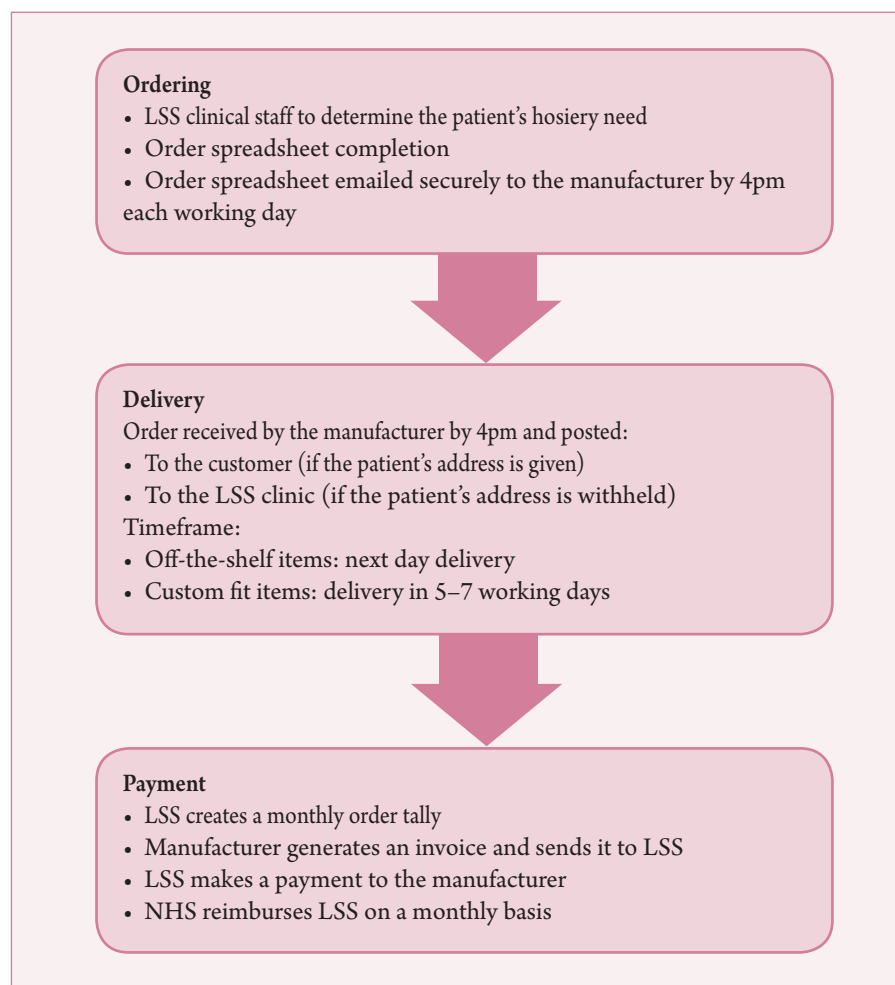


Figure 2. The compression hosiery ordering project process.

Table 5. Efficiencies of the compression hosiery ordering project route.

Efficiency	Who benefited	Key improvement
Allocative		Good patient experience Confidence in system Stress-free
	Patient	
	LSS	Prompt hosiery delivery direct to the address selected by the patient (usually the patient's home) Order accuracy, i.e. no wrong or lost orders
Productive	Patient	Rapid, optimal delivery timescale Correct items received
	LSS	Staff released from administrative burden of 'chasing hosiery' Staff confidence in order accuracy (safe practice)
	NHS	No financial waste due to order accuracy
Clinical	Patient	Prompt access to hosiery (treatment)
Organisational	Patient	Confident hosiery appointment scheduling
	LSS	Dedicated time to formulate orders and invoice reconciliation
Coordination	Patient	Robust, central ordering system, with tracking of every order
	LSS	Quality assurance, i.e. quality, safety and value
	NHS	Monitoring of annual hosiery costs and trends

Table 6. Time to receiving hosiery with CHOP.

Time (days)	Percentage
7 or less	54
8–14	44
15–21	2
>21	0

Table 7. Ease of obtaining hosiery using CHOP.

	Percentage
Very easy	80
Easy	17
Adequate	2
Hard	0
Very hard	1

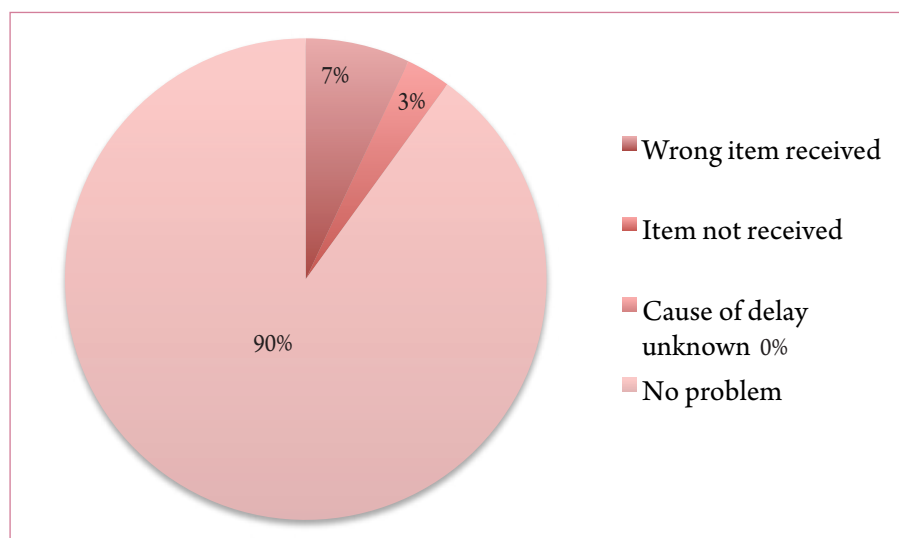


Figure 3. Issues experienced with the CHOP route.

process (Figure 3). Of the remaining 10%, most issues were due to teething problems while developing the CHOP. The CHOP process was found to be very easy or easy for 97% of patients; only 3% found the system adequate to very hard to use (Table 7).

Outcomes

LSS's direct ordering and purchasing of hosiery has been and continues to be well received by service users and NHS commissioners. There is evidence of patient benefits, as well as cost and resource savings for the East Sussex Clinical Commissioning Groups, including:

- Discounts on all hosiery items purchased
- Free postage

- Invoice reconciliation
- Accurate ordering systems with numbers for tracking, ensuring no loss or wastage.

Today, Medi UK Ltd continues to fulfil the objectives established at the outset of the project. The implementation of CHOP has led to an annual total saving for the NHS of £6,894.96. The success of CHOP has resulted in the process being embedded as a CQUIN (Commissioning for Quality and Innovation) by NHS service commissioners and in part it fulfils LSS's NHS contract/service specification.

The future

To monitor the standard of delivery, LSS plans

to undertake annual telephone audits with patients. The selection process will continue to be random and include new patients but not those who are terminally ill. Quarterly submission of data to NHS commissioners upholds LSS's accountability and ensures accurate spending on behalf of the NHS, as well as added value through agreed discounts. Data on hosiery spending trends, numbers of patients being treated at any given time and the exact costs of hosiery for each patient are also available.

Recommendations for practice

LSS recommends the CHOP model as an alternative approach to the *Drug Tariff* for obtaining hosiery. There are benefits when purchasing compression garments direct from the manufacturer: working in partnership ensures patients have prompt, stress-free access to hosiery. The model is applicable and adaptable for all lymphoedema services to use. If it is adopted, there is no doubt that the NHS, service providers, clinicians and, ultimately, patients will benefit.

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