

MANAGED REPEATS EXECUTIVE REPORT MEDICINES OPTIMISATION LUTON CCG

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Executive Summary

Overview: Repeat medicines accounts for 80% (£21.6M) of the prescribing budgetⁱ for Luton CCG. Locally it is seen that approximately 86% (£18.6M) of repeat medicines is ordered by community pharmacy with carers and patients ordering the remaining 14%ⁱⁱ.

3.2M items are prescribed annually across Luton CCGⁱⁱⁱ. It is further estimated that approximately 66% of these items (2,112,000) are for repeat medicines^{iv} at an average cost of £10.22 per item.

Managed Repeats can be defined as a service to patients that has been agreed primarily between the community pharmacy and an individual patient where the community pharmacy is empowered by the patient to order and collect their repeat medicines. Many CCGs/PCTs see Managed Repeats as a source of waste, a system that disempowers patients and as a possible conflict of interest for community pharmacies. Locally there have been many complaints raised from GP practices relating to inappropriate requests for repeat medicines.

Audit: In order to get a better understanding of the local picture repeat prescription data was collected from GP practices (n=18) between October 2013 and January 2014. From this data calculations were made as to what percentage of repeat medicines ordered by community pharmacy, carer and patient are in excess and then the average percentage excess. This data was extrapolated to calculate the estimated wastage from over ordering of repeat medicines across Luton CCG (see methodology pages 6-7) by community pharmacy. Calculations were also made on the excess ordering by patients and carers from the data set but also calculations were made to estimate excess ordering by patients and carers if applied across the Managed Repeat cohort i.e. 86% of repeats (£18.6M).

Audit Results: 319 patients' records were viewed and 1498 repeat items assessed as to whether they had been over ordered. These items were mostly ordered by community pharmacies (n= 1288) but data was also collected where patients (n=169) or carers (n=41) initiated the order. The audit shows, for the community pharmacy ordered repeats (Managed Repeats), that there is over-ordering on 29% of items and that the average % of the over-ordered items over-ordered is 45%. 37% of items were ordered correctly (i.e. there were no excess days) and 34% of items were with unclear or no directions. A calculation of excess costs was made on this 34% by applying the ratio of over ordered items to correct items and the same percentage over-ordered i.e. 45%.

Data was annualised e.g. if over a time period of 6 months there was 1 month over-ordering then an assumption was made that this pattern would continue for the year and in this example there would be 2 month waste across the year.

£2.1M was calculated as the over spend per annum generated from Managed Repeats. This figure is likely to be much higher as there will be excess ordering of those items where there are no clear instructions. If the ratio of over-ordered to correctly ordered is applied to the unknown items then a figure of £3.2M is more likely to be the annual excess spend.

When considering carers the sample size though small N= 41 items indicates a much lower over-ordering with no over-ordering significant (greater than 14 days difference between ordered and required). The estimated wastage if applied across the spend on Managed Repeats i.e. £18.6M would amount to £72K and £0K if discounting any over-ordering less than 14 days. The patient data set N=169 items shows over-ordering at 17% and over-ordered items are on average 20% greater than required. An annualised estimate of the value of over-ordering is £596K when applying the above data across Managed Repeats.

Insulin: Items that do not have a dosage may more likely to be over-ordered than those with a dose particularly where patients are not asked whether they need the medicine in a timely fashion. To test this theory a subset of insulin prescriptions were considered where there was no dose on the prescription and no indication as to how many days were prescribed. The sample sizes were small (n=38 items) but showed a range of over-ordering between 0% (n= 2 items) and 370% (n= 15 items). From this data it would seem very likely that there are particular problems with managing repeat prescribing and ordering of insulin. Current wastage is probably in the region of £240K but could be higher.

The data can be looked at across the individual community pharmacies and at the practices. The audit data indicates that several pharmacies and several practices do not have robust systems in place to manage their respective managed repeat and repeat prescribing processes.

Caveats: There are several caveats which might mean there is an over or an underestimation on the possible value of the excessively ordered and prescribed medicines. These caveats include:

1. **Small sample sizes for patient and carer generated items:** The total number of items prescribed across Luton is 3.4M per annum therefore 210 items is a small sample. This could mean an over or an under estimate of medicine waste.
2. **Annualisation:** The number of days of data on each item ranged from 9-240, with a mean value of 129 days and a median value of 132 days. It is not possible to be sure whether the items would be ordered similarly for the rest of the year though obviously the longer the number of days the greater the certainty.
3. **Surgery sample size:** 18 of 31 surgeries were sampled. These surgeries may not be a true representation of the rest. This might mean that the estimated wastage is less or more than the real value.
4. **Community Pharmacies sample size:** The 30 community pharmacies may not be a true representation of the rest. This might mean that the estimated wastage is less or more than the real value.
5. **Managed Repeats (% of all repeats):** The audit showed 86% of items ordered were through Managed Repeats however a local Healthwatch survey, interviewing patients, showed a much smaller percentage at 31%. However Healthwatch surveyed patients who were attending GP surgeries therefore the sample would be skewed, as this would include patients ordering or collecting their prescriptions which would not be truly representative of Managed Repeat patients who would not collect their prescriptions from the GP surgery and would generally only present at surgery for review or acute need. However even if the percentage of Managed Repeats sample size was reduced to 70%, this would still approximate to very significant wastage at £2.5M.
6. An assumption was made from national data that **80% of prescribing costs** are for repeat medicines. This figure might not be reflected locally.
7. The data assumes **patients are compliant** with the directions on their prescriptions. Perhaps 50% of patients do not take their medicines as intended. This may increase the wastage particularly where Managed Repeat processes do not include a check with the patient before ordering or dispensing their medicines.
8. Patients may have attended **hospital as an inpatient** and not used their GP prescribed medicines during their stay. This may result in an underestimate of medicines waste.
9. It is not possible to say with certainty that the **medicines have been dispensed**, although ordered by community pharmacy, carer or patient and prescribed by GP. This may result in an overestimate of medicines waste.
10. Type 1 diabetics' **dosage may vary** and additionally patients may discard incomplete doses in pre-filled syringes to avoid two injections and having to make calculations. This may overestimate the value for wasted **insulin** that could be avoided.

Conclusion & Next steps: The audit provides a very clear signal that it is very likely that significant medicine waste is generated by Managed Repeats and that there needs to be immediate measures put in place to mitigate against continuing costs of waste. There is need for particular concern when prescribing insulin where the results from the audit strongly suggest that there is very significant excess ordering/prescribing.

It is recommended that Luton CCG adopt a similar approach to Scotland in introducing a set of standards for Managed Repeats and consider running a public campaign to encourage the public to recognise the value of prescribed drugs and reduce wastage. The Scottish standards reflect the standards set by the Royal Pharmaceutical Society

The recommendations are that

1. The standards for best practice in Scotland (see Appendix 4) should be adopted locally with immediate effect.

2. That particular standards should apply to insulin Managed Repeats following discussions with the Diabetes LIG and Local Prescribing Committee.
3. That discussion with stakeholders is commenced with a view to consider other solutions these will include roll out of the electronic prescription service (EPS)). These stakeholders to include GPs, Community Pharmacy Contractors, Patients, Social Services, Secondary Care, the CCG and possibly other AT CCGs.
4. That GP systems and Managed Repeats are continuously reviewed and audited in year.
5. That where there is evidence of significant excess medicines waste generated that can be attributed to a community pharmacy and/or general practice that in the first instance the contractors are made aware and if then the excess wastage continues that an escalation of action is instigated using NHS England contractual levers and/or recommendations are made to stop Managed Repeat service where a sole GP practice is identified.
6. GP practices and Community Pharmacies, identified in the audit as having less control on their repeat prescribing processes, will be supported by their Medicines Optimisation practice pharmacist and a technician specifically commissioned to review and support repeat prescribing processes in practices.

Methodology:

October 2013- January 2014 Audit

Setting: Repeat medicine requests were audited across 18 Luton CCG GP practices and included data from 30 Luton Community Pharmacies. Repeat medicine requests from carers and patients were also included.

Data Collected: The dates of medicines requests, the quantities requested and dosage was recorded for each item requested looking back up to 6 months). Medicines Optimisation team pharmacists collected the data.

The data was then analysed according to the initiator of the repeat request that is whether it was community pharmacy ordered items (Managed Repeats), or patient ordered items or carer ordered items. The number of items was recorded. The number of items over-ordered was recorded (this was where the number of days ordered exceeded the number of days covered by the orders) e.g. Atenolol 100mg once daily x 28 issued on August 10th, August 30th, September 20th, October 16th, November 9th so 4 x 28 = 112 days were ordered between August 1st and November 16th however the number of calendar days between those dates = 91 therefore the number of days over-ordered equals 21 days. This figure was then annualised so an assumption made that the pattern of ordering will be the same for 12 months therefore in this example 112 days was ordered to cover 91 days therefore annualised $112/91 \times 365 = 449$. The percentage over-ordered was calculated and averaged across the over-ordered items. Data was also collected on the significantly over-ordered items that are items that are over-ordered by greater than 14 days.

The following calculations were made (using Community Pharmacy data set for example) to estimate the cost of over-ordering across community pharmacy managed repeats.

1. Managed Repeats Community Pharmacy (excludes calculations made on unclear items)

- 80% of the cost of prescribing are for repeats therefore $\text{£}27\text{M} \times 80/100 = \text{£}21.6\text{M}$ (National statistics)
- 86% of sample were community pharmacy managed repeats therefore costs attributable to managed repeats = $\text{£}21.6 \times 86/100 = \text{£}18.6\text{M}$ (audit data)
- From the audit data (see appendix 1) 37% (484 items) of managed repeat items ordered were correct, 34% (433 items) of managed repeat items were unclear and 29% (370 items) were over-ordered.
- The average percentage duration over-ordered for the 370 items (29% of sample) was 45%.
- The above figures as ratios was then applied to the estimated total spend from managed repeats i.e. $\text{£}18.6\text{M}$ to calculate the cost of over-ordering.

The following equations were used

The cost of $\text{£}18.6\text{M}$ can be divided between the three groups;

- 1- Correctly ordered: $484/1454 \times \text{£}18.6\text{M} = \text{£}6.19\text{M}$
- 2- Over-ordered: standard cost $370/1454 \times \text{£}18.6\text{M} = \text{£}4.73\text{M}$, plus extra cost of over-ordered supply $0.45 \times 370/1454 \times \text{£}18.6\text{M} = \text{£}2.13\text{M}$
- 3- Unclear: $433/1454 \times \text{£}18.6\text{M} = \text{£}5.54\text{M}$
(note that the denominator is $484 + (1.45 \times 370) + 433 = 1454$)
Medicine waste $\text{£}2.13\text{M}$

Total waste only considering those items significantly over-ordered i.e. 14 days more than needed i.e. 222 items and 73% percentage over-ordered and applying the same methodology as above –
Medicines waste $\text{£}2.07\text{M}$

2. Managed Repeats including unclear items where the unclear items were included (using the proportions identified from the over-ordered/correctly ordered and percentage over-ordered of the over-ordered items)

- As for above Total Waste Managed Repeats i.e. **£2.13M**
- Number of items over-ordered (370) + Number of items correct (484) = 854
- Number of items over-ordered (370) as a % of Number of items over-ordered (370) + Number of items correct (484) = 43%
- Number of items correct (484) as a % of Number of items over-ordered (370) + Number of items correct (484) = 57%
- Apply 43% to unclear items = 14.6%
- 14.6% as a % of over-ordered items i.e. 29% = 50%
- 50% of £2.3M = £1,064,000
- **Total waste £3.2M (£2.13M + £1.06M)**

3. Medicine Waste Patient Ordered

- Applying the same methodology as for Total Waste Managed Repeats Community Pharmacy but using the data set as in Appendix 2
- **Total waste £596,562**

4. Medicine Waste Carer Ordered

- Applying the same methodology as for Total Waste Managed Repeats Community Pharmacy but using the data set as in Appendix 3
- **Total waste £72,300**

	Total items	Number over-ordered	Average % over-ordered	Number Significantly over-ordered (over 14 days)	Annualised Cost of over-ordering
Community Pharmacy	1288	370	45%	222	£2,129,350 (£3,187,636)*
Patients	169	28	20%	12	£596,562
Carers	41	4	4%	0	£72,300

* If include the unclear items

Results

See Appendices 1-3

1. Appendix 1 Community Pharmacy (Managed Repeats)
2. Appendix 2 Patient ordered prescription data
3. Appendix 3 Carer ordered prescription data

Table 1 Summary
Community Pharmacy (Managed Repeats), Patients and Carers (See Appendices 1-3)

Repeat ordered by	Sample size	Number of Items over-ordered	% Over-ordered (percentage of number of excess days)	Estimated annual cost of waste through excess prescriptions
Community Pharmacy	1288	370 (29%)	45%	£2,13M
Community Pharmacy	1288	222 (items over 14 days extra)	73%	£2,07M
Community Pharmacy	1288	556 (includes 186 estimate of over-ordered from unclear sample)	45%	£3.2M
Patients	169	28	20%	£596,562 (assuming patients ordering Managed Repeats portion)
Carers	41	4	4%	£72,300

Table 2 Summary
Community Pharmacy (Managed Repeats) Insulin

Surgery (S)/Community Pharmacy (P)	Number of insulin items	Number of insulin items (over-ordered)	% Over-ordered (total sample)
S18 P26, P28, P3	8	5	24%
S4 P24	7	6	23%
S10 P18	4	4	79%
S12 P19	2	0	0%
S6 P1 P3 P5 P29	17	14	370%

Appendix 1 RESULTS Luton CCG Audit of Managed Repeats October 2013- January 2014

Community Pharmacy Managed Repeats Data

Figure 1 Prescription Items % over/correct/unclear

N= 1288 (items)

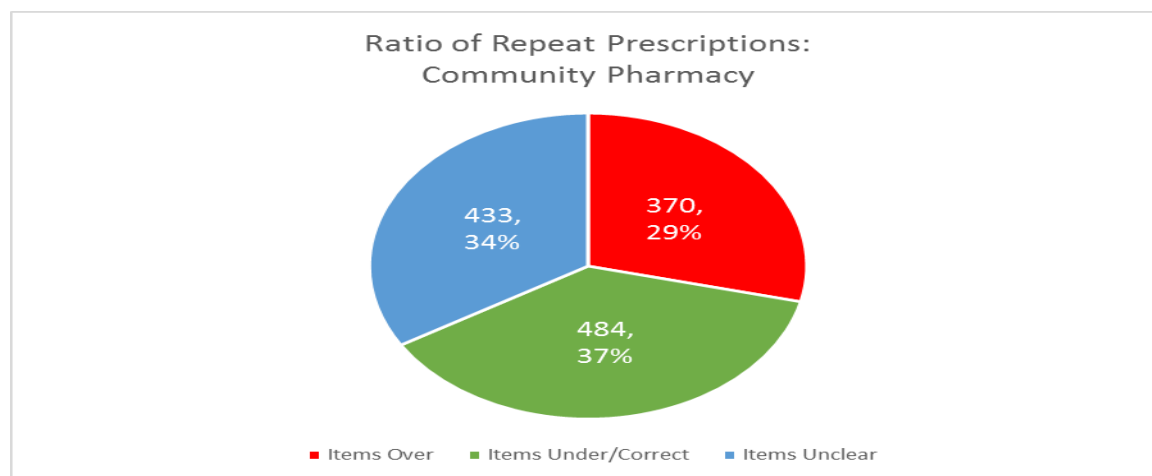


TABLE 1 Estimated excess prescribing cost (all over-ordered/prescribed items)

Sample Data Size	1288
Total Number of Items over-ordered/prescribed	370
Total Number of Items significantly over-ordered/prescribed (over 14 days difference between needed and ordered)	222
Average % over-ordered/prescribed	145%
Annualised Cost of over-ordering/prescribed across Luton CCG	£2,129,350

TABLE 2 Estimated excess prescribing cost (over-ordered/prescribed items excludes items not significantly over-ordered/prescribed)

Sample Data Size	1288
Total Number of Items over-ordered/prescribed	N/A
Total Number of Items significantly over-ordered/prescribed (over 14 days difference between needed and ordered)	222
Average % over-ordered/prescribed	173%
Annualised Cost of over-ordering across Luton CCG	£2,072,567

Appendix 2 RESULTS Luton CCG Audit of Managed Repeats October 2013- January 2014

Patient-ordered Prescription Data

Figure 2 Prescription Items %s over/correct/unclear

N= 169 (items)

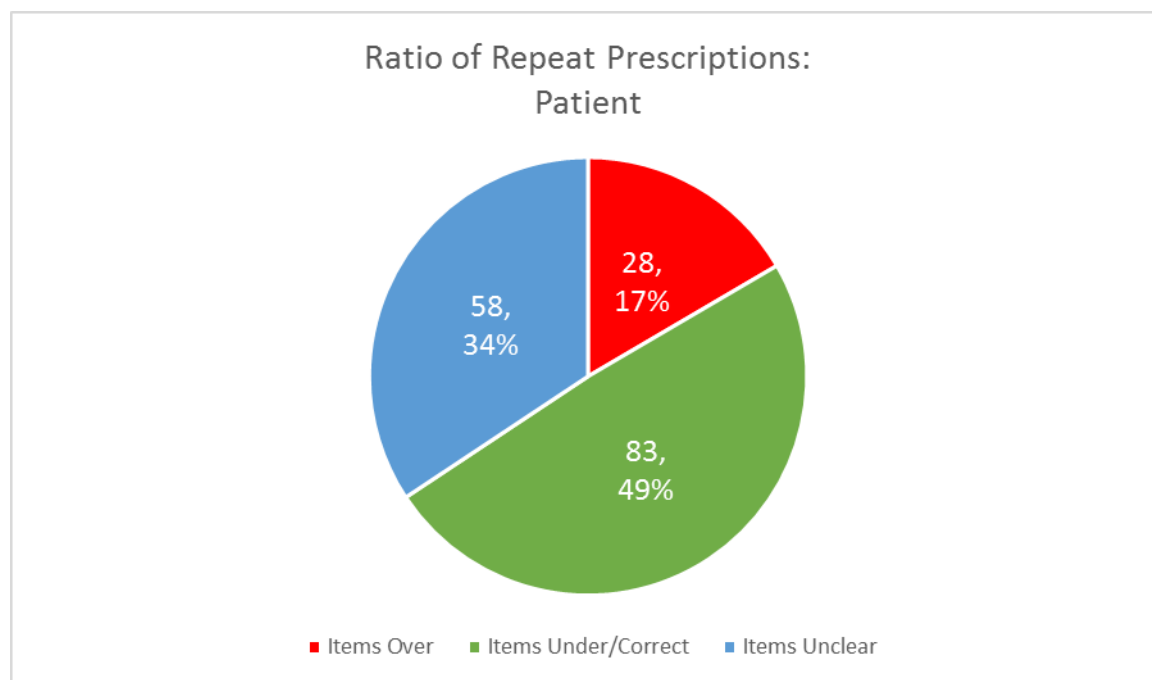


TABLE 2 Estimated excess prescribing cost (all over-ordered/prescribed items)

Sample Data Size	169
Total Number of Items over-ordered/prescribed	28
Total Number of Items significantly over-ordered/prescribed (over 14 days difference between needed and ordered)	12
Average % over-ordered/prescribed	120%
Annualised Cost of over-ordering if ordering Managed Repeats	£596,562

Appendix 3 RESULTS Luton CCG Audit of Managed Repeats October 2013- January 2014

Carer-ordered prescription Data

Figure 3 Prescription Items %s over/correct/unclear

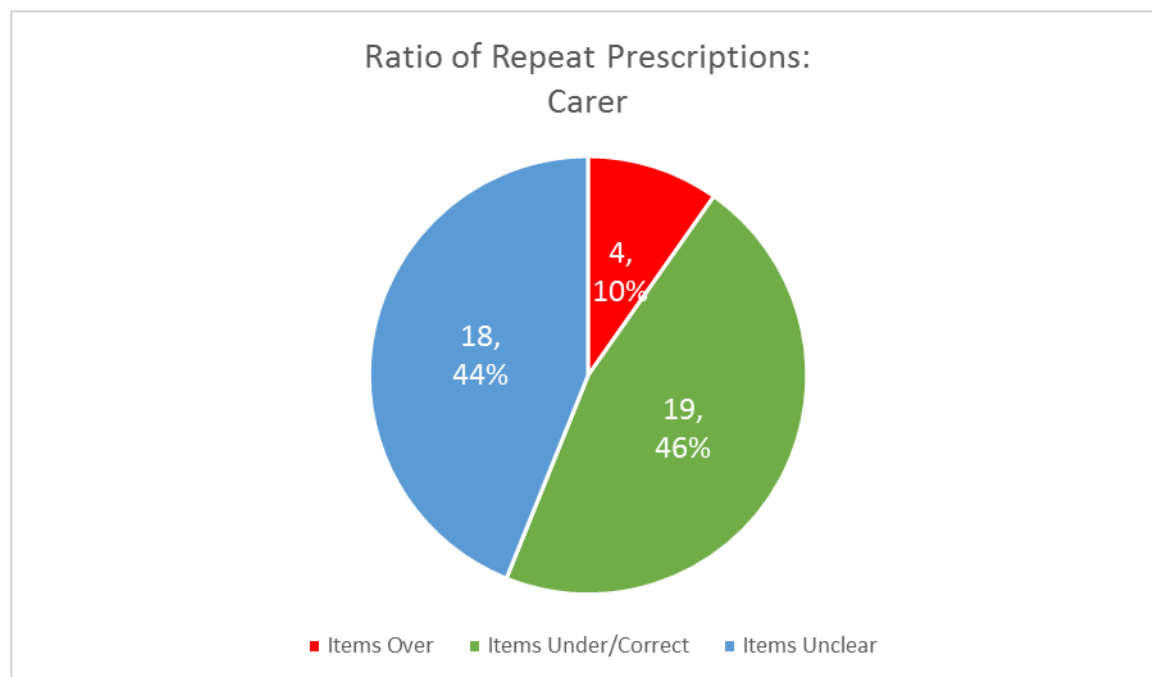


TABLE 3 Estimated excess prescribing cost (all over-ordered/prescribed items)=

Sample Data Size	41
Total Number of Items over-ordered/prescribed	4
Total Number of Items significantly over-ordered/prescribed (over 14 days difference between needed and ordered)	0
Average % over-ordered/prescribed	104%
Annualised Cost of over-ordering/prescribed across Luton CCG	£72,300

Table 4 Care & Patient Dataset

Provider	Total Items	Total Items Over	Total Items Under or Correct	Total Items Unclear	Total items over 14 days	Total Items under 14 days	Average Percent Over	Percentage of total items over	Percentage of total items significantly over
Carer	41	4	19	18	0	4	2.00%	9.76%	0.00%
Patient	169	28	83	58	12	16	0.24	16.57%	7.10%
Average	210	32	102	76	12	20	13.00%	13.16%	3.55%



Managed Repeats – Supporting Best Practice

A number of managed repeat services currently operate in Scotland. Some of these services have become a focus for criticism by some GPs and NHS Boards culminating in the issue of a letter to contractors discouraging operation of such schemes. Earlier this year Community Pharmacy Scotland set up a working group to consider the operation of these services and the group put together the following guidance for contractors' use.

Best Practice Guidance

All pharmacies operating managed repeat systems must ensure they have a standard operating procedure (SOP) in place outlining how the service operates from their pharmacy. Ideally this SOP should incorporate the **following standards**:

Standard No 1

All pharmacies operating a managed repeat system should ensure the system delivers safe, effective and person centred care for patients.

Standard No 2

All pharmacies operating a managed repeat system should ensure co-operative working with GP practices.

Standard No 3

All pharmacies operating a managed repeat system should ensure that all patients using the scheme have given signed authorisation for a community pharmacy to order repeat medication on their behalf. A copy of this signed authorisation should be kept by the pharmacy and be made available for **verification**.

Standard No 4

All pharmacies operating a managed repeat system should ensure that confirmation of the repeat items where dispensing is required, including as required or as directed items, should be obtained directly from the patient/carer by a suitably qualified person either;

- At no more than 14 days before they are required by the patient or
- At the point of dispensing.

This check must not be delegated to delivery drivers or other unqualified staff. How, when and by whom this confirmation is obtained should be recorded and records retained so that in the event of a complaint a comprehensive audit trail is in place.

Standard No 5

All pharmacies operating a repeat system must ensure that a robust protocol is in place to ensure any items which are not required by the patient are not submitted for payment to PSD. The protocol developed must ensure that "not dispensed" is clearly marked on the paper and in the electronic message.

Appendix 5 Royal Pharmaceutical Society Standards

REPEAT MEDICATION SERVICES STANDARDS

A repeat medication service is a service operated in co-operation with local prescribers, in which pharmacists will provide professional support to assist in the rational, safe, effective and economic use of medicines.

In order to provide a repeat medication service, you must:

5.1 ensure the pharmacy operates a patient medication record system notified to the Information Commissioner's Office.

5.2 ensure that an audit trail exists to identify each request and supply.

5.3 establish, at the time of each request, which items the patient or carer considers are required and ensure that unnecessary supplies are not made. At this stage pharmacists must also use their professional judgement to decide whether concordance or other problems encountered by the patient may require early reference to the prescriber.

5.4 not request a repeat prescription from a surgery before obtaining the patient's or carer's consent. You may however institute a patient reminder system.

5.5 record all interventions in order to be able to deal with any queries that may arise

ⁱ Prescriptions dispensed in the community statistics for 1994-2004: England, Health and Social Care Information Centre 2005

ⁱⁱ Luton CCG Audit of Managed Repeats October 2013- January 2014

ⁱⁱⁱ Electronic Prescribing Data 2013/14

^{iv} NPC, Dispensing with Repeats: A Practical Guide to Repeat Dispensing September 2008