

Limitations of GP prescribing records in assessing medication adherence in children and young people with asthma

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Introduction

- Multiple digital systems in the NHS are used to record medication prescribing and dispensing, including the GP Shared Care Record (SCR), London Care Record (LCR), community pharmacy Patient Medication Record (PMR) and hospital systems which are used to measure adherence ^{1,2,3}. However, these systems do not communicate with each other, resulting in fragmented and sometimes inconsistent medication records.
- To confound this, medication may also be provided in emergency or urgent care departments and through emergency pharmacy supply, which may not always be accurately reflected in GP records.
- GP prescribing records are often used as a proxy measure of medication adherence in asthma, which is a key determinant of asthma control in children and young people (CYP).
- A case involving a 6-year-old child with poor asthma control demonstrated that medication history, as recalled by the family, differed significantly to GP and pharmacy records.
- Inaccurate medication records can hinder identification of high-risk asthma patients with excessive reliever use or underuse of inhaled corticosteroids (ICS), and may also affect safeguarding assessments, damaging trust between healthcare professionals and families.
- Understanding the reliability of GP prescribing records is essential for effective asthma management, patient safety and safeguarding.

Aim

To critically evaluate the reliability of GP prescribing data in CYP with asthma, and to explore the implications of data inconsistencies for patient management.

Methods

- A mixed methods service evaluation using quantitative and qualitative measures was conducted, following the identification of a case involving a 6-year-old child with poor asthma control.
- Medication history, as recalled by the family, was compared to GP and pharmacy records.
- Significant discrepancies identified (see Table 1) prompted a broader evaluation of healthcare professionals' experiences and perceptions regarding the accuracy of electronic medication records in practice. A questionnaire was sent to pharmacists, Clinical Nurse Specialists, GPs and paediatricians working in the field of CYP asthma in London.

Limitations

Small number of respondents to the survey.

References.

1. NICE NG245 2024 <https://www.nice.org.uk/guidance/ng245>

2. Global Initiative for Asthma (GINA) 2025 [2025 GINA Summary Guide - Global Initiative for Asthma - GINA](https://www.ginasthma.org/)

3. McCrossan P, Shields MD, McElnay JC. Medication Adherence in Children with Asthma. Patient Preference and Adherence. 2024;18:555-564 <https://doi.org/10.2147/PPA.S445534>

4. Why asthma still kills, The National Review of Asthma Deaths (NRAD) RCP 2014 <https://www.rcp.ac.uk/media/i2jkbmc/why-asthma-still-kills-full-report.pdf>

Table 1: Example of a patient with significant discrepancies in GP records and pharmacy records

GP records and pharmacy records for patient X over previous 12 months			
Medication	GP records	Pharmacy Records	Variation
Amoxicillin (courses)	11	10	-1
Co-amoxiclav (courses)	3	2	-1
Azithromycin (suspension/tablets)	2	0	-2
Fluticasone nasal spray	1	0	-1
Prednisolone (oral courses)	3	5	+2
Fluticasone 125 mcg pMDI	1	10	+9
Seretide 50/25 mcg pMDI	1	2	+1
Salbutamol 100mcg pMDI	2	24	+22
Montelukast 5 mg tablets	0	10	+10
Total Items	24	63	+39

Results

- A total of 22 responses were received covering all Integrated Care Board (ICB) areas of London.
- The survey demonstrated that discrepancies between GP prescribing records and actual medication use are common in CYP asthma care, with 14 (64%) observing mismatches when comparing records to family recollections, Figures 1 & 2.
- Respondents reported a range of frequencies for these discrepancies, and only a minority contacted pharmacies to verify records.
- Differences included both the type and name of medications prescribed versus dispensed.

Figure 1: Number of respondents comparing patient records using LCR & GP prescription records

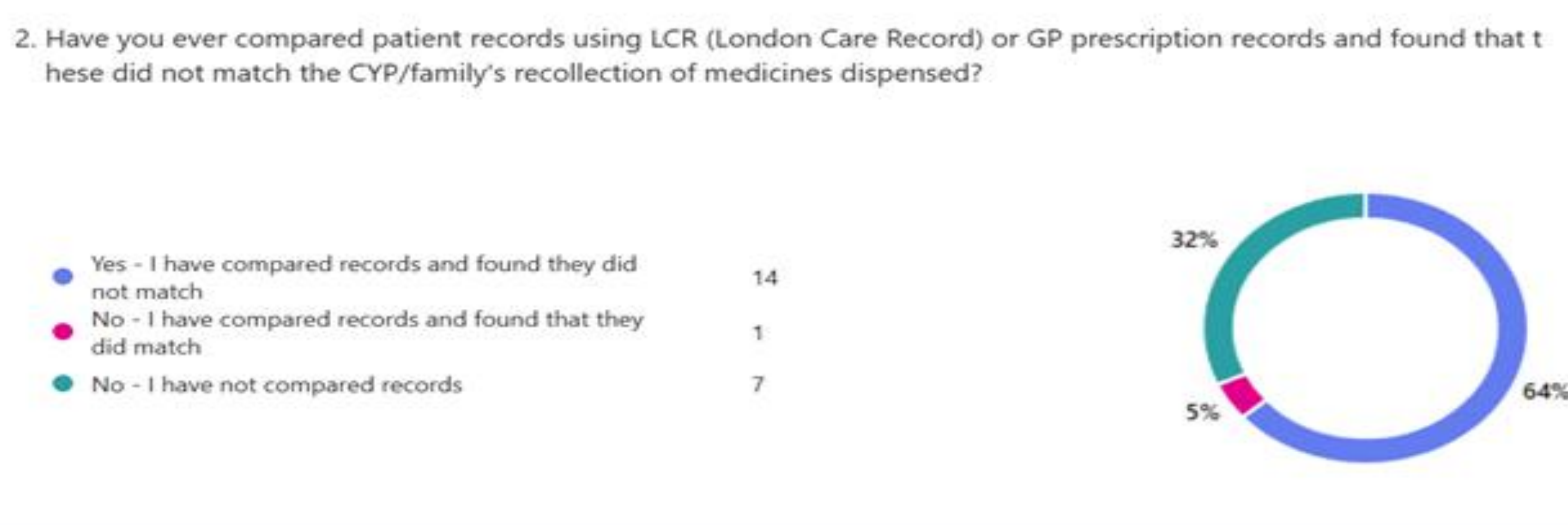
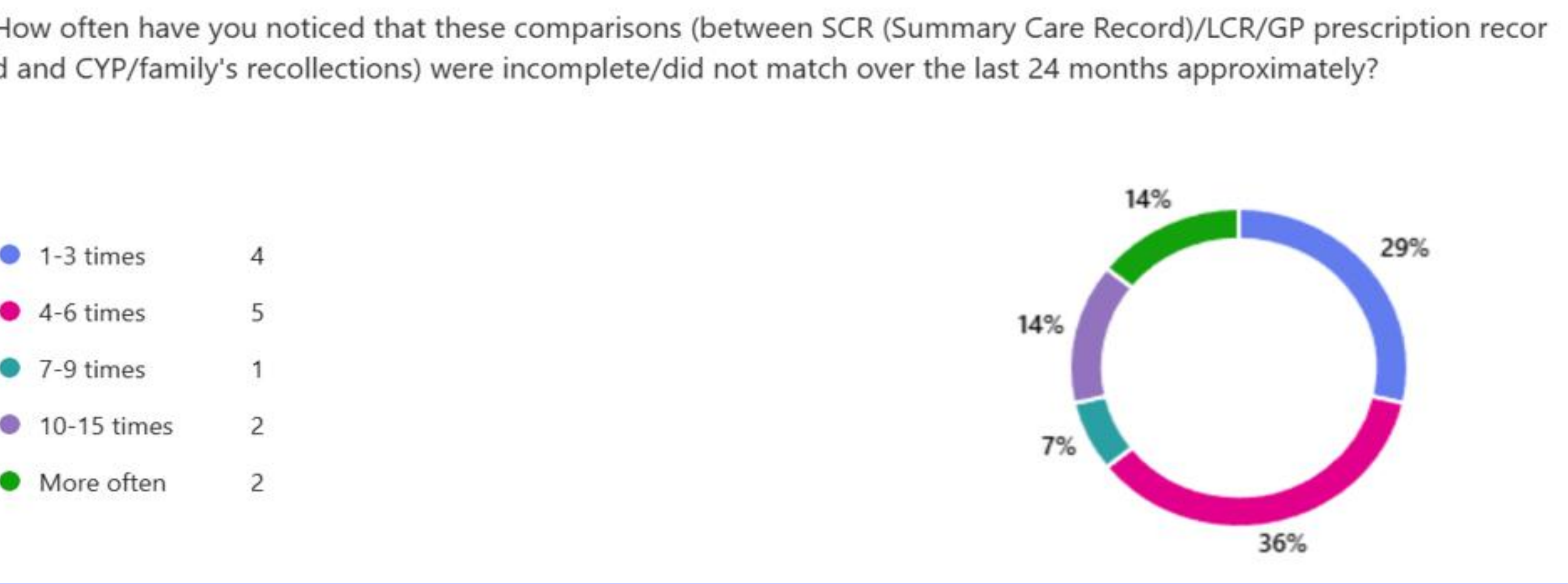


Figure 2: Number of respondents reporting inaccuracies



Conclusions

- The discrepancies identified in the case study and subsequent survey underscore the limitations of relying solely on GP prescribing data to assess adherence among CYP with asthma. The results may also be relevant for other long-term conditions.
- Risks of inaccurate or incomplete records include missed opportunities for safeguarding, effective clinical management and monitoring, both at an individual and system-wide level.
- Treating clinicians doubtful about adherence or family recollection of medications dispensed should obtain pharmacy records for prioritised patients.