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Health Care System Organisation and Leadership

Case Study Analysis Report

Case Study 1: Infant Morphine Overdose **NHS North East and Yorkshire Region (2023)**

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Table of Contents:

1. Introduction.....	3-4
2. Main Body and Analysis.....	4
2a. Systems Thinking and Rich Picture.....	4-10
2b. Centralisation and Decentralisation	10-12
2c. Leadership Theories and Application	12-14
2d. Improvement and Lessons Learned	14-16
3. Recommendations.....	16-19
4. Conclusion	19
5. References	20-23

1. Introduction

Leadership is the key to success for every entity. (West et al., 2015) states that leadership in health care and social care can be defined as the ability to influence others to attain goals in an uncertain and complex environment. Healthcare leadership is distinct from traditional leadership in commercial environments because it is directly connected to patient safety, ethical responsibility, public confidence, and legal accountability. It is proven that effective healthcare leadership implies excellent operational efficiency and motivates clinical teams, responds proactively to crises, and maintains a culture focused on patient safety (NHS Leadership Academy, 2013). The NHS Leadership Academy's Healthcare Leadership Model provides an appropriate framework for evaluating leadership through nine dimensions, including inspiring shared purpose, engaging team members, and accountability for everyone.

The NHS in the Northeast and Yorkshire published a serious incident study in 2023, which shows the near-fatal morphine overdose of a four-week-old infant. Due to a lack of clear communication in the hospital, the baby was incorrectly supplied with morphine sulphate oral solution at a concentration of 10mg/5ml, twenty times stronger than the prescribed 100 micrograms/ml formulation. Somehow, the infant survived after emergency medication. This study shows that this incident was the fifth incident that was reported since 2018, and one of the victims of the incident died (NHS NEY, 2023). This shows that there are wider failures in governance, leadership, communication, and organisational learning, making it a significant case for critical analysis.

The major concern in healthcare organisational design is the balance between centralisation and decentralisation. In centralisation system, where authorities decide at the top, resulting in greater support, clear communication, and consistency of the organisation. However, this structure might decrease the ability of top-level staff to respond flexibly to local needs and changing circumstances (Saltman, Bankauskaite and Vrangbaek, 2007). On the contrary, decentralised systems puts more authority at the regional level, allowing services to adapt more effectively to their specific context. But decentralisation can also lead to variation in practice, weaker accountability, and fragmented safety cultures (Peckham et al., 2012). The NHS follow both approaches. But it remains centred in some areas such as medicines regulation, NICE guidance, and national strategic direction from NHS England.

Leadership theory shows a useful lens through which institutional and behavioural issues are examined. Burns (1978) found an important distinction between transformational and transactional leadership. Transformational leadership emphasises encouraging people for a defined and shared purpose, engagement, while transactional leadership focuses on compliance and performance through reward or punishment. According to Hersey and Blanchard (1969), leadership must be adaptable to the circumstances. The responsibility of leadership must be shared across teams and professional boundaries (Spillane, 2006). The report examines the incident through contextual, organisational, and leadership perspectives.

This case study covers learning outcomes 2a, 2b and 2c, each corresponding to a separate section. Section 2a outlines the problem from a global and national perspective and provides a Rich Picture using Soft Systems Methodology (SSM). Section 2b discusses centralisation versus decentralisation of leadership roles as it impacted the case. Section 2c applies concepts from leadership theories, relating them to the events that occurred. Section 2d is a detailed outline of improvements and

lessons learned, with findings analysed using CATWOE methodology. Section 3 sets out practical recommendations, and Section 4 offers some conclusions.

2. Main Body and Analysis

2a. Identifying the Problem and Setting the System Context: Applying Systems Thinking and the Rich Picture

The Central Problem

The incident involved with a four-week-old infant who was prescribed morphine sulphate 100ml, which is classified as a RED drug under NHS NEY's regional medicines formulary. It is indicated that the drug must be used, prescribed, and dispensed within secondary care (NHS NEY, 2023). When the baby was discharged from the hospital, the discharge summary omitted to clearly indicate the dosage restriction on the medication. The primary care physician mistakenly prescribed it in the community practice. When the community pharmacist picked the prescription up, they dispensed the standard 10mg/5ml liquid, which was twenty times stronger than it should've been. However, the pharmacist suspected something was unusual, but had no reporting process to follow when there appeared to be problems with the prescription or discharge instructions. The baby's parents unknowingly gave him the medicine as prescribed, and he suffered respiratory depression, and he needed emergency naloxone on site. In 2018 alone, there were at least five occasions on which an infant was incorrectly dosed with oral oxycodone from community pharmacies; one of these cases led to an infant's death (NHS NEY, 2023). Repeated occurrences over time suggest fundamental flaws in the way the system is run, communicated through and led.

Global Statistical Context

The World Health Organisation (WHO) regards medication mistakes as the most severe types of preventable harm incurred worldwide. The World Health Organisation (2019) states that nearly half of the 42.7 million harmful medication events recorded during hospitalisations internationally are preventable each year. Based on a 2017 WHO study of the Medication Without Harm challenge, the annual global cost of medication mistake is about \$42 billion, about 1% of total global healthcare spending (WHO, 2017). The harm from medication accounts for half of preventable harms across healthcare globally, accounts for 50% of all preventable harms throughout healthcare in the world and 23% of severe harms in healthcare globally, which have been life-threatening (WHO, 2024). It has been reported that approximately 160,000 people lose their lives every year to medication errors in Europe (EAASM, 2022). Opioids given to infants are regarded as high - risk drugs because tiny overdoses can lead to fatal respiratory depression in developing countries (Tariq et al., 2024; WHO, 2017). More than 50% of medication harm events worldwide happen during prescribing (WHO, 2024), and this is also where the first error in this case occurred.

Indicator	Evidence
Global cost of medication errors	\$42bn/year (or 1% of global health spending) (WHO, 2017)
Preventable harm from medication errors	50% (WHO, 2024)
Severe/life - threatening medication harm	23% of preventable medication harm events (WHO, 2024)
EU medication error deaths	Approximately 160,000 (EAASM, 2022)
Medication errors in England	237 million, 66 million clinically significant (Elliott et al. , 2020)
Avoidable ADE deaths in England	1,708 to 22,303 (Elliott et al. , 2020)
NHS cost of avoidable ADEs	£98.5 million to £1.6 billion (Elliott et al. , 2020)
NHS negligence payments (2023/24)	£2.8 billion (1.7% of budget) (UK Government, 2024)
UK patient safety ranking (2023)	21st out of 38 OECD countries (Imperial College London, 2023)
Safety alerts not implemented on time	Approximately 40% (at local trust) (UK Government, 2024)
NHS staff burnout/stress (2024)	30.2% burnout, 42.2% stress (BMA, 2024)

Table 1: Key statistics on global and national medication error burden.

Figure 2: Medication Errors by Stage of the Pathway — England
(Elliott et al., 2020, BMJ Quality & Safety; N = 237 million errors/year)

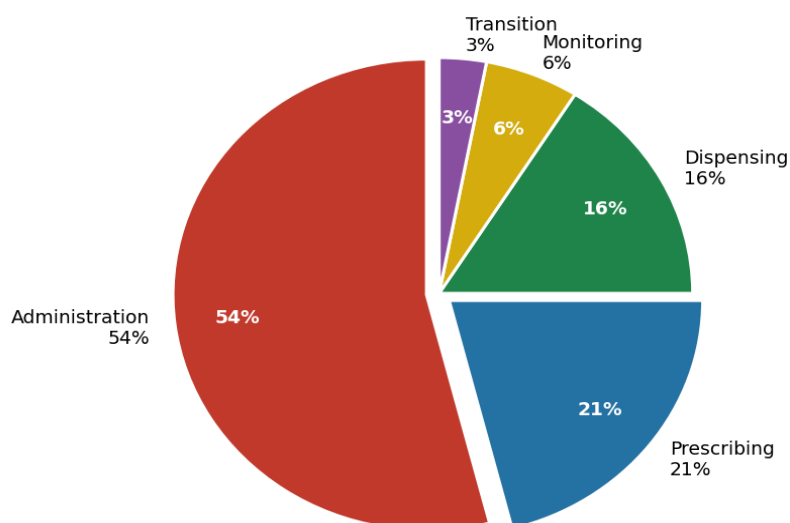


Figure 2: Medication errors by stage in England. The NHS NEY case involved prescribing, transition, and dispensing failures (38% nationally).

Source: Elliott et al. (2020), BMJ Quality & Safety.

Figure 3: Severity Classification of Medication Errors in England
(Elliott et al., 2020; approx. 4.7 million errors/year carry severe harm potential)

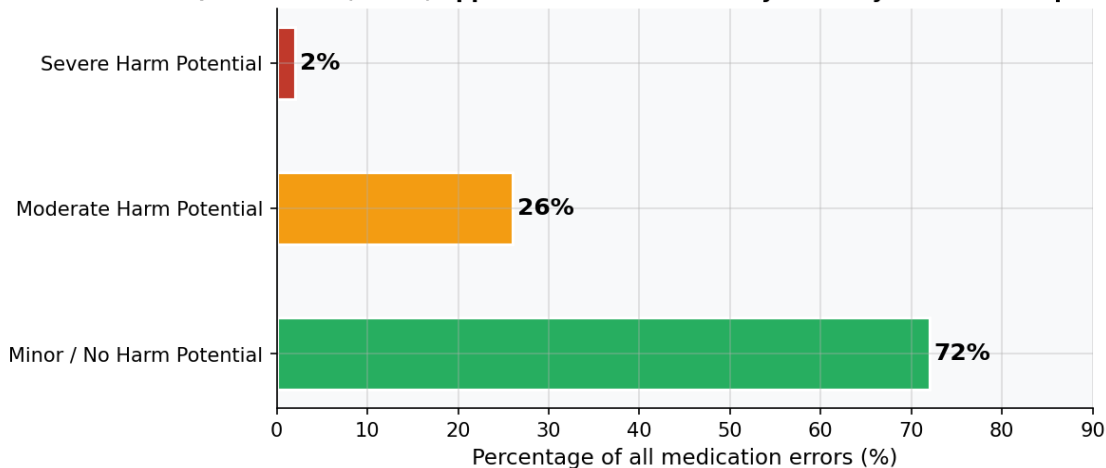


Figure 3: Severity of medication errors in England. While 72% are minor, 2% are severe around 4.7 million high-risk errors annually.

Source: Elliott et al. (2020).

National Statistical Context and NHS-Specific Evidence

It has been witnessed that among the millions of mistakes that happen in the UK's National Health Service (NHS) annually, over two hundred million occur just in England. Elliott et al. (2020) also found that around 66 million medication errors are clinically significant. These mistakes were linked to £98.5 million in avoidable costs and 1,708 preventable deaths each year. The impact increased quickly to £1.6 billion and 22,303 deaths annually. The Recent studies show that NHS England continues to face substantial financial drawback from clinical negligence claims, with payouts reaching £2.8 billion in 2023/24. Patient safety performance has also degraded over the time. Imperial College London (2023) reported that the NHS dropped from 5th in 2002 to 21st in 2023 among 38 OECD countries across the world. The report also predicted that about 780 lives could be saved every year if NHS England delivered the standards of the best performing countries.

IHI, HSSIB and National Organisation Data

IHI considers opioid safety a systems problem with integrated and shared governance by clinicians. IHI recommends pharmacist review for high-risk drug transfers across care transitions (IHI, 2024). HSSIB has investigated several incidents involving prescription opioid errors in children and neonates, finding handoffs from hospital to the community setting to be consistently the weakest link in patient safety (HSSIB, 2023). The 2024 NHS England patient safety review states that about 40% of national serious medication safety alerts remain unheeded by some local NHS trusts within the allocated timeframe (UK Government, 2024).

Systemic Weaknesses, Governance Level, and Workforce Context

A major failure was a lack of communication during the discharge process. Discharge summaries failed to mention a RED drug restriction. There was no pharmacist transfer between the hospital pharmacy and the community pharmacy. Another governance issue: The NHS NEY RED drug policy had been issued, but there was no system for its enforcement by primary care. The responsibility of who was supposed to follow the policy wasn't defined between the hospital pharmacy, community pharmacy, the GP and the ICB, leaving each isolated instead of joined up in safety processes. Increased pressure of staff shortages will also play a big part in this scenario. NHS figures at the beginning of 2023/24 indicated that vacancies were just over 126,000 in the NHS, with nearly 43,000 of them being nurses or 8.9% of its workforce. In September 2023, staff turnover reached 11% by September 2023 (Oleao, 2025), which further degrades patient continuity of care and a healthy patient safety culture, which has been shown to be strongly related to its overall reduction. A further study in the 2024 NHS Staff Survey reported 42.2% of medical staff work at least part of the time because it is the job to be done, not because they're enjoying their work and 30.2% feel burnt out (BMA, 2024).

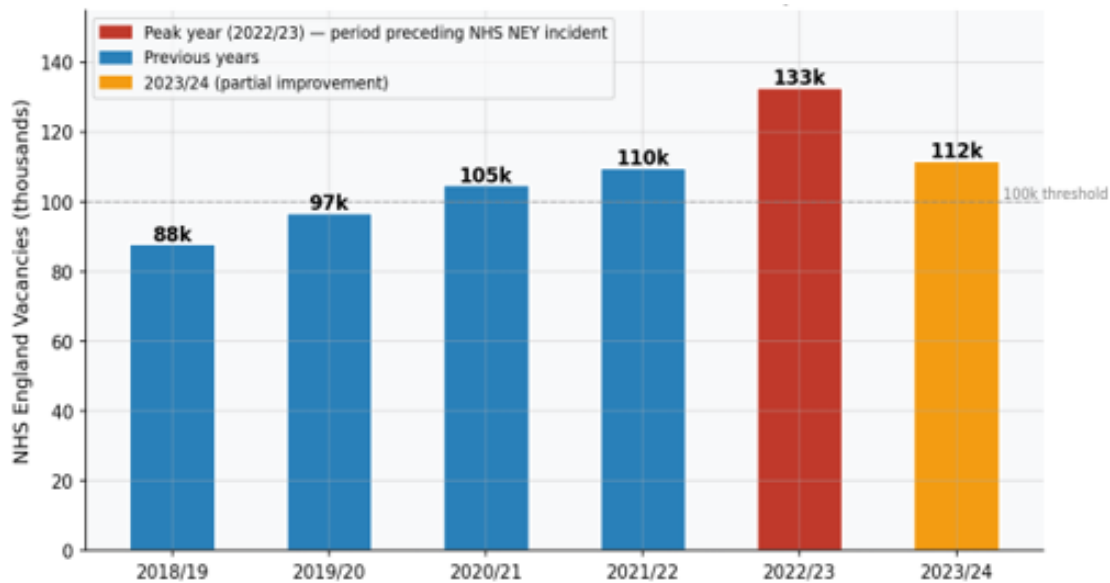


Figure 5: NHS England workforce vacancies 2018/19–2023/24. The peak of 133,000 vacancies in 2022/23 coincides with the period preceding the NHS NEY incident. High vacancy rates directly increase cognitive load on remaining staff, raising medication error risk.

Sources: Statista (2024); King's Fund (2024); Full Fact (2024).

Rich Picture: Applying Soft Systems Methodology

This rich picture from Figure 1 below reflects the rich picture concept from Checkland (1981) soft systems thinking. Unlike many of the other pieces here, which tend to concentrate on direct cause and effect, this shows us the full, messy picture of different types of individuals, processes and structures working with each other, how they interacted in such a way that resulted in a lot of harm being caused, communication breakdowns and missing feedback.

SYSTEM: NHS NEY Prescription Pathway for Specialist Medicines in Neonates			
(HOSPITAL TEAM) • Prescribes 100mcg/ml RED drug • Issues discharge summary • Summary lacks RED drug flag	GP PRACTICE (Primary Care) • Receives ambiguous discharge summary • Re-prescribes in community setting • Doesn't query RED drug status	COMMUNITY PHARMACY • Dispenses 10mg/5ml (standard) • Notes dosage discrepancy • No formal escalation pathway	PARENTS / CAREGIVERS • Receive wrong concentration • No medication safety counselling • Administer 20x overdose in good faith
ICB GOVERNANCE • Sets RED drug policy • No enforcement mechanism, , at primary - secondary interface	△COMMUNICATION &, FEEDBACK GAP • No closed feedback loop at any node • NRLS captured 5 incidents 2018-2023 • No mandatory national alert issued	NHS ENGLAND • NRLS voluntary reporting in place • Patient Safety Alerts mechanism • Incident 1-4: no mandatory alert	OUTCOME • 4-week - old: 20x morphine OD • A&E: naloxone treatment • Survived (5th such incident) • Previous incident: infant DEATH • NHS negligence costs: £2.8bn/yr

Figure 1: A "rich picture" of the NHS NEY Infant Morphine Overdose incident (SSM - Checkland, 1981).

Figure 6: Contributing Factors to NHS NEY Infant Morphine Overdose (Author analysis based on NHS NEY, 2023 Serious Incident Case Study)

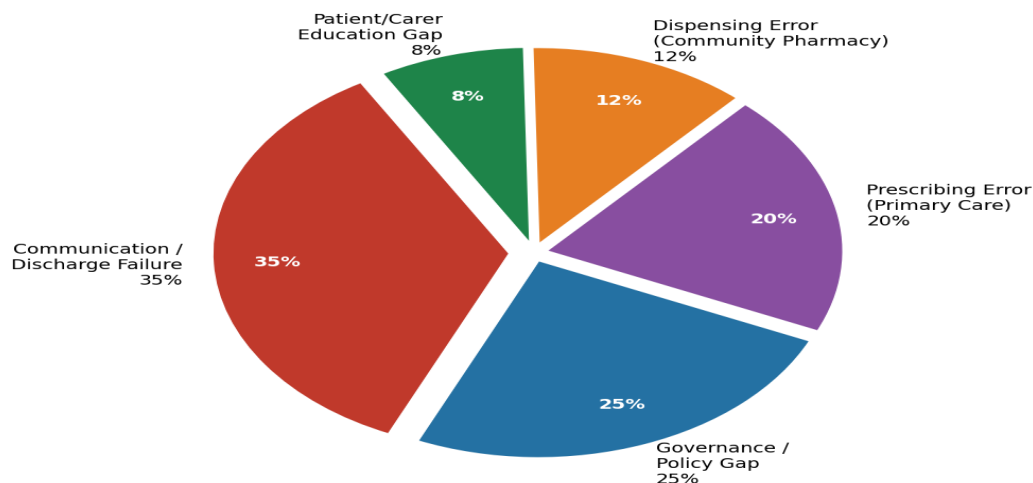


Figure 6: Root causes derived from author analysis of the NHS NEY infant morphine overdose. 60% are a result of communication and governance failures.
Source: Derived from NHS NEY (2023).

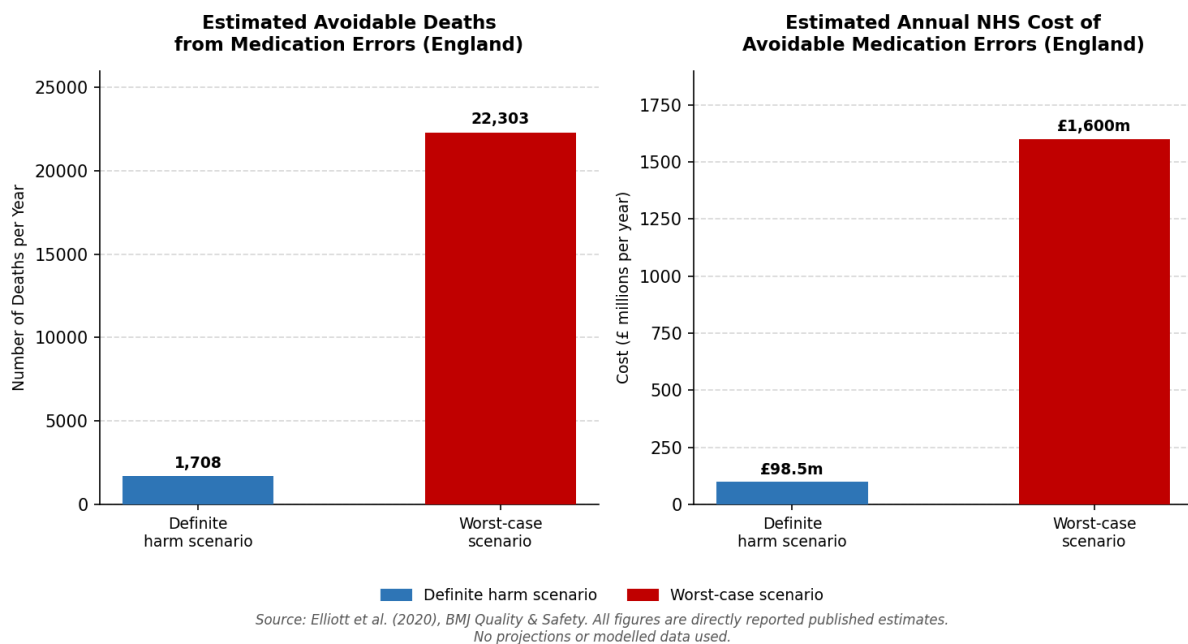


Figure 7: Estimate of avoidable deaths in England and associated NHS costs due to medication errors, considering both the most likely (definite - harm) and the least likely (worst - case) outcomes.

Source: Elliott et al. (2020). BMJ Quality & Safety.

The three most telling errors highlighted in this rich picture were these: no information was passed back to the GP on the child's discharge about the red drug alert, nor did the community pharmacist know who to pass back to the GP on discovering the dose problem before the dispensing. Lastly, according to the NHS's national safety alerts reporting system, 5 similar cases had happened between 2018 and today and it failed to raise a mandatory warning national safety alert (Braithwaite W, Wears R, Hollnagel E. Making Patients Safer - Why the Healthcare Community Needs a Revolution in the System? (2015). Patient Safety in Healthcare, 5: 1-4). This well illustrates the point that the failure of safety in healthcare comes not from a single error but from the coincidence of errors occurring in the correct.

2b. Centralisation and Decentralisation Within the Case Study

The NHS runs some things from the centre, like the regulation of drugs, guidelines by NICE and national safety alerts. Others are run from the level of the individual GP practice, the individual community pharmacy or the local NHS Trust - how the standard guideline applies there (Saltman, Bankauskaite and Vrangbaek 2007). Observing how these two systems worked together this time helps illustrate the strengths and weaknesses of the NHS system.

Centralised Elements: Strengths and Weaknesses

The RED drug classification also demonstrates the advantage of centralised governance. NHS NEY has introduced a medicines governance committee which restricts morphine sulphate 100mcg/ml to hospitals to enable a standardised level of safety across the region. It's such an example of centralised control, enabling consistency, reducing risk. The National Reporting and Learning System was therefore able to recognise a pattern across 5 reported

incidents, which wouldn't have been possible without central collation of incident data (NHS NEY, 2023, NRLS/NHS England, 2022). This reflects a key intention of the NHS Long Term plan for shared patient safety learning. However, effective centralised governance relies upon enforcement and adherence. It didn't guarantee enforcement of the RED drug rule across primary care following its inception, such weakness of top down policy implementation has been cited in care transitions (Peckham et al. 2012, Elliott et al. 2020) and in 2024 the patient safety review observed that roughly 40% of serious national safety alerts weren't fully implemented on time by trusts nationally (UK Government, 2024).

Dimension	Centralised	Decentralised
Examples	RED policy, NRLS, safety alerts, NICE, MHRA	GP prescribing, pharmacy dispensing, local formulary
Strengths	Standardisation, national learning, consistency	Flexibility, judgement, faster local action
Weaknesses	Weak enforcement, 5 incidents but no mandatory response, 40% alert delays (UK Government, 2024)	No specialist review, pharmacist had no escalation power
Evidence	5 incidents (NHS NEY, 2023), 237m errors/year, transitions highest risk (Elliott et al. , 2020)	38% primary care errors, 8.9% vacancies, 30.2% burnout (Statista, 2024, BMA, 2024)
Level	ICB / NHS England	GP / community pharmacy

Table 2: Comparative analysis of centralised and decentralised governance in the NHS NEY infant morphine incident.

Decentralised Elements: Strengths and Weaknesses

The primary locus of service delivery lies in several settings: GP practices, community pharmacy and hospital pharmacy teams, who have a large degree of professional autonomy, reinforced in the Health and Care Act 2022, which moved to formally set up Integrated Care Boards with overarching responsibility for local planning and provision of services. In the instance described above, the community pharmacy exercised professional judgment by questioning the dose. This demonstrates the strength of decentralised working; however, because there was no route to escalate the issue, the concern didn't move forward. While decentralisation has merit where systems are in place to support it - ICS areas outperforming non - ICS areas by 73% across a series of key indicators due to local leadership - such as through a distributed leadership model during COVID-19 which helped NHS hospitals reshape their services more rapidly or through a model of low - cost and high patient satisfaction from self - managed teams in the Netherlands, it appears the issue in the NHS NEY case stems from weak accountability mechanisms than the nature of decentralisation itself.

Critical Comparative Analysis

Neither approach protected the baby from harm, though. The blanket national controls provided by the centralised RED drug protocol were an important measure to promote safety, but they lacked local support on the ground. Likewise, the professional judgment of the pharmacist in the community and the general practitioner was in place, but without the power to impose safer options. These authors suggest that any NHS Trust's governance system would need to support national guidelines while incorporating local accountability mechanisms that reinforce these guidelines. However, the case described above has failed at the interfaces between hospital and community care when the existing pressures on its workforce, which at that point were reported by Statista (2024) as being 126,000 unfilled jobs, 30.2% burn out (BMA, 2024) and an 11% staff turnover (Oleeeo, 2025), weakened it still further.

2c. Leadership Theories and Application to the Case Study

This case can be more readily analyzed through the lens of four different theoretical models of leadership, namely: transformational leadership, transactional leadership, distributed leadership and situational leadership. Using these models we're able to understand not just what failed, but what it was about a variety of leaders operating at various points within the system who did not move sufficiently to prevent the same type of failure occurring again, not once, but four additional times across six years.

Theory	Failure in This Case	Better Outcome if Applied
Transformational (Burns, 1978, Bass, 1985, NHS Leadership Academy, 2013)	No system - wide response to repeated incidents	Early safety programme, named lead, empowered staff
Transactional (Burns, 1978, Bass, 1985)	RED drug policy not monitored or enforced	Audits, compliance checks, real - time monitoring
Distributed (Spillane, 2006, West and Lyubovnikova, 2013)	Pharmacist and GP lacked authority/confidence to escalate	Frontline escalation power, shared accountability
Situational (Hersey and Blanchard, 1969)	Leadership response was too rigid	Directive action first, then coaching and support

Table: Some key leadership theories which might help to account for the NEY incident along with their implications in relation to this case (Burns 1978, Bass 1985, Spillane 2006, Hersey and Blanchard 1969, West and Lyubovnikova 2013, NHS NEY 2023).

Transformational Leadership

In essence, Transformational Leadership, initially theorised by Burns in 1978 and later expanded by Bass in 1985, describes leaders who instil vision, enthusiasm, inspiration and ethical grounding within their teams rather than relying primarily on the reward and punishment systems that comprise transactional leadership. Within healthcare, a transformationally led workplace culture promotes an environment in which team members feel psychologically safe to express their thoughts, report errors and adverse events without fear of punitive retaliation and question unsafe practice in an effort to improve the safety and quality of care for patients.

The NHS Leadership Academy (2013) lists inspiring shared purpose and engaging the team as two of the top values and characteristics required for high - quality healthcare leadership within their Healthcare Leadership Model.

There's clear evidence of this leadership lacking within the ICB and Trust following the incident, with the initial incident treated as a learning event only and with no subsequent attempt to change systems following the second incident. Four events occurred without a response. For example, the NHS Digital Transformation program demonstrated that where leaders developed a clear and consistent vision focused on safety, their engagement figures stood at 87% across 223 NHS Trusts, and more than 83% wanted to become champions (Quarterdeck, 2025). According to the 2023 NHS Staff Survey, less than three in 10 people reported feeling supported well to raise safety concerns (NHS Staff Survey, 2023). When people don't feel that it's safe to speak up, unsafe patterns can repeat, and patients are put at increased risk (Awan et al., 2022).

Transactional Leadership

A transactional leader makes rewards for positive behaviours explicit. While a rule may have existed, if nobody is checking up on the rule being followed, there are no rewards or punishments, only a "policy" or a "guideline" to check if an order has followed the RED drug rule. Nothing was really done with RED drugs in this case: the pharmacist voiced a concern that the patient has RED drug, but it doesn't say that he wasn't to supply it or that permission had to be given by a senior to supply. The pharmacist had done their "policy," but if the pharmacist had a follow - up check, it'd have become clear nothing was actually done. Another common aspect of this with medication errors, especially at transitions of care for critically ill and complexly medicated patients, is guidelines (Jones, Patel & Man, NHS 2024). Additionally, an audit published by the UK Government (2024) showed that "more than 40% of serious national alerts were missed or partially missed within the recommended timescales". West et al. (2015), however suggest rules without a culture of safety are an "exercise in box ticking".

Distributed Leadership

Distributed leadership maintains that responsibility for patient safety is shared by everyone involved in a role. Rather than sitting solely at the senior management level (Spillane, 2006), evidence has found that patientsafety is better managed when healthcare staff also assume responsibility for health outcomes (West & Lyubovnikova, 2013). Although the community pharmacist found evidence of a risky practice, they had limited personal accountability for the practice itself, as they possessed neither the formal authority nor the structured pathway needed to halt the dispensing practices. However, a well - formed distributed leadership approach would empower the pharmacist to challenge and change unsafe behaviour. Evidence suggests that NHS Trusts utilising distributed leadership in particular, have reacted better and adapted faster to the demands presented during the COVID-19 pandemic, in contrast to organisations that have maintained a purely top - down model of management (Quarterdeck, 2025). Such cultural transformation can't happen, nevertheless, given that as much as 42.2% of NHS staff feel work - related stress and almost 30% consider leaving the service (BMA, 2024).

Situational Leadership

Leadership must adapt according to how able and confident employees are, using direction when danger is greatest and support, where people need help to develop skills and become confident (Hersey and Blanchard, 1969). Leadership flexibility was missing because the response was too rigid and top - down, failing to acknowledge the situation at the street level. Both pharmacists and GPs were authorised to deal with RED drug escalations, leadership should've sent better guidance, taken a closer look or provided specific staff training. However, the response was a bit of both a 'firm but fair' command-and-control system, combined with an option for gentle encouragement later on. This might've included more directing action from above after the early warning signs and the use of a bit more coaching for those struggling over a period of time, aligning with the guidance of the NHS Leadership Academy (2013), which insists that leaders need to adapt to changing contexts and the varying capacities and confidence of team members.

2d. Improvement and Lessons

By considering the interaction between leadership, governance and system structures in this case, we can see how opportunities were squandered at every level: at the individual level in the case, within the health organization and at the level of national policy, each of which needs a practicable solution based on empirical evidence.

Issue	Data	Solution
RED drug policy is not well followed	40% of alerts are delayed; there have been 5 such incidents (UK Government, 2024; NHS NEY, 2023)	carry out automated digital checks that require a pharmacist sign - off.
Discharge communication lacks safety	RED flag information is missing, and patient transitions pose the greatest risk (Elliott et al., 2020)	Use an SBAR template for discharge and have a pharmacist review medication.
No clear path for escalation	A pharmacist identified a risk but was unable to intervene (NHS Staff Survey, 2023)	Provide training, establish a hotline and grant stop - dispensing authority.
Staffing shortages	There are vacant positions, widespread burnout, stress and high turnover (Statista, 2024, BMA, 2024, Oleeo, 2025)	Appoint safety officers, introduce decision support tools and carry out retention strategies.
Limited national learning from incidents	Five incidents occurred without a mandatory alert being triggered (WHO, 2021; NHS NEY, 2023)	Establish a time - limited response protocol following repeated incidents, and create a forum for sharing lessons learned.
Parents aren't adequately prepared	Patients receive no counselling, and gaps in education lead to errors at home (Clinical Paediatrics, 2023)	Develop a parent guide, offer discharge counselling and schedule a follow - up within 48 hours.

Table: The link between the problem, the evidence, and the improvement. All improvements should be supported by research evidence and based on either current NHS policy and guidance or WHO frameworks for improving health.

CATWOE Analysis: Applying Soft Systems Methodology

Checkland's (1981) CATWOE framework helps define what kind of system change is actually needed in NHS NEY, and who is responsible for making it happen.

Element	Application to NHS NEY Case
Customers (C)	The infant and family, neonates/infants discharged on specialist opioids, wider NHS patients exposed to high - risk medication transitions
Actors (A)	Hospital prescribers and pharmacists, GPs, community pharmacists, parents/caregivers, NHS NEY ICB, NHS England, HSSIB
Transformation (T)	From unsafe, unverified opioid prescribing across care boundaries to safe, digitally verified, multi - professional management of high - risk medicines
Worldview (W)	Patient safety is a shared system responsibility; governance should create safety barriers than rely on individual vigilance
Owners (O)	NHS NEY ICB, NHS England, MHRA, HSSIB, Secretary of State for Health and Social Care
Environment (E)	NHS vacancies, burnout, negligence costs, delayed safety alerts, fragmented care systems, limited ICB resources (Statista, 2024, BMA, 2024, UK Government, 2024)

Table: CATWOE analysis (Checkland, 1981) of the NHS NEY infant morphine incident. Root definition: a system of close - loop, multi - professional oversight of opioid prescribing for neonates prescribed on specialist advice, throughout the care pathway.

Linking System Structure, Leadership, and Feedback: Lessons for Health Organisations

The main takeaway is that it's insufficient to have only a policy if no one can act on safety concerns, no support exists for staff carrying out safety duties or no mechanism to use reports to bring about systems improvements. The WHO Global Patient Safety Action Plan 2021-2030 indicates that if a pattern of recurrent errors has been detected across the nation, then action has to be made with the set timeline given. This didn't occur for 6 years. The Plan - Do - Study - Act improvement cycle of IHI would act as a model of continuing improvement for NHS NEY to maintain its safety governance standard in respect of medicines (IHI, 2024).

There can be no doubt that this wasn't a result of personal failing. In England, there are 237 million preventable medication errors per year (Elliott et al. , 2020), 126,000 vacancies within the NHS workforce (Statista, 2024), 40% of safety alerts were missed within NHS trusts in February 2023 (UK Government, 2024) and the burnout level of 30.2% among NHS doctors has been alarming (BMA, 2024). This has all been described as happening to an system " under siege". The errors could therefore be predicted to be happening with individual effort when such pressure is placed on staff. To create real progress, the structure, culture, leadership and staffing must all simultaneously change, not step by step.

3. Recommendations

The following six recommendations are practical, evidence-based, and directly address the root causes identified in this report. They should be implemented in order, with Recommendations 1 and 2 as the most urgent priorities.

	Recommendation	Evidence Base	Leadership Framework	Responsible Body
1	Make closed - loop digital prescribing verification mandatory for all RED drugs and all specialist drugs at care transition, no community dispensing unless after a secondary care pharmacist's electronic sign - off,	Digital prescribing reduces medication errors by 30% to 50% (Tariq et al. , 2024), ISN DAPB4013 (NHS England, 2024), PMC (2024)	Transformational and transactional (strategic vision and compliance)	NHS NEY ICB, NHS England, Trust chief pharmacists

	connect to NHS England ISN DAPB4013 interoperability framework			
2	Mandate SBAR - structured discharge documentation to accompany all controlled and specialist opioid prescriptions, mandate specialist pharmacist medicines reconciliation for all neonates and infants before discharge, mandatory parent counselling using WHO 5 Moments for Medication Safety	SBAR validated for use in NHS care transitions (NHS Improvement, 2018), NICE (2023) guidelines on medicines optimisation, WHO 5 Moments for Medication Safety (WHO, 2017)	Transactional and distributed (process and frontline)	NHS trust pharmacy leads, GP leads, ICB governance, community pharmacies
3	Develop a 24/7 specialist pharmacist clinical decision support hotline available for primary care use, give community pharmacists formal institutional authority to stop dispensing RED drugs before a specialist reviews it, conduct mandatory human factors training for GPs and pharmacists	Distributed leadership (Spillane, 2006), Wheeler et al. (2018), decreases care transition errors by 15% to 40% (BMJ, 2024)	Distributed and situational (frontline empowerment and coaching)	NHS NEY ICB, Royal Pharmaceutical Society, NHS trust clinical governance
4	Assign Regional Medicines Safety Officers within NHS NEY ICB to act as an interface for governance between secondary and primary care, review prescribing	Every £1 invested in pharmacy safety leads to £3-£6 NHS savings (Elliott et al. , 2020), IHI Model for Improvement (PDSA) (IHI, 2024), King's	Transformational and transactional (governance leadership)	NHS NEY ICB, HSSIB, NHS England patient safety directorate

	data and RED drug compliance on a quarterly basis, develop a real - time patient safety dashboard	Fund on safety governance (2011)		
5	Co - create parent/carer medication safety resources designed for neonates prescribed specialist drugs, conduct mandatory pre - discharge safety counselling, and make a follow-up pharmacist telephone call within 48 hours of discharge to each baby prescribed high - risk paediatric opioids	WHO 5 Moments for Medication Safety (WHO, 2017), NHS England on co - production (2022), IHI research on patient partnerships (2024)	Transformational and distributed (patient empowerment)	NHS trust ward teams, community pharmacies, NHS NEY patient engagement leads
6	Establish a quarterly NHS NEY Regional Medicines Safety Learning Forum using PDSA methodology; mandate a time-bound policy response (within 6 months) following any third analogous national incident in NRLS; embed continuous learning in ICB governance cycle	25-35% reduction in repeat incidents from continuous learning (BMJ, 2024); WHO GPSAP 2021-2030 Action 3.1 (WHO, 2021); IHI Model for Improvement (IHI, 2024)	Transformational + Distributed: learning culture at the system level	NHS NEY ICB; NHS England; HSSIB; GP Federation leads; community pharmacy networks

Table: Prioritised recommendations and the supporting evidence base. Recommendations 1-3 aim to close existing gaps, and recommendations 4-6 support the development of governance and learning systems for the future.

Implementation, Risks, and Evaluation

There will be obstacles in getting these recommendations put into practice. Digitisation requires expenditure, so perhaps start high risk, such as opioids, before implementing widely

across a broader range of prescription medicines. A further barrier is workforce pressures, since there were 126,000 vacancies in the NHS (Statista, 2024) and 30.2% of staff report burnout (BMA, 2024). The reforms won't work if they require existing staff time, they require Protected Time allocated by the Trust Board and strong leadership support. Without that support, new processes can become a 'tick - box' exercise. To improve GP and community pharmacy buying - in, frontline staff need to be consulted at the start of the development process (NHS England, 2022). Review of progress in this initiative can be held every six months by the Regional Medicines Safety Learning Forum using data such as the number of RED drug errors, compliance rates with discharge summaries, staff confidence in reporting medication errors and reaction times following repeat incidents.

4. Conclusion

This report has concluded that the NHS NEY infant morphine overdose resulted not from a lone mistake, but from communication, governance and leadership failures. Though the baby survived, five similar adverse events over six years saw no strong system - wide improvement - demonstrating a clear systematic problem. While evidence varies wildly across settings, medication harm is a substantial international and national safety issue worldwide (WHO 2017, 2019, 2024, Elliott, L. H. , et al. , 2020). For instance, while the U. K. NHS continues to see widespread shortages and staff burnout, this is made worse by a lag in the taking of action on safety alerts, with significant time passing between notification and meaningful change (Statista 2024, BMA 2024, UK Government 2024). For the report, it was found that there exists an 18 month - one year, up to three years - knowledge and communication and governance and leadership gaps between hospital and community care environments and inadequate enforceability of the RED drug policy has and does, permit a repeat of failure over and again. To this end, the report made six recommendations aimed at plugging these fundamental deficits and bolstering the standards of medicines governance and safety. The report ultimately holds this instance as indicative of how patient safety relies on top - tier leadership, firm accountability and coordinated care, it's not dependent on policy alone.

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