

Witness Name:
Julie Coope
Statement No.:1
Exhibits: JC/1
Dated: 09.04.24

THIRLWALL INQUIRY

WITNESS STATEMENT OF JULIE COOPE

I, Julie Coope, will say as follows: -

Career History

1. I trained and qualified as a Registered General Nurse in Manchester at the Royal Infirmary and then travelled to the US where I worked for a short period.
2. I returned and worked in various clinical roles, in both the NHS and private sector before moving into Industry, as a project Nurse, where I worked in and managed projects across the UK. I moved to Dr Foster Intelligence in 2007 and progressed through their ranks to become Regional Business Director (RBD) responsible for the business and support of clients in the Northwest. I worked at Dr Foster until 2017 when I took the option of redundancy, as they reconfigured their business and chose to leave.
3. Dr Foster Intelligence was originally established by newspaper editors as they saw a gap in the public's visibility of hospital comparative performance, it was the analytical engine behind the 'Good Hospital Guide'. In my role as RBD, I was responsible for building and maintaining the business and therefore met with most Chief Executive Officers and Medical Directors in the region.

DATA

4. Dr Foster published the Hospital Guide yearly, usually via a Sunday newspaper, I believe it started in the Times. The publication listed and 'ranked' organisations against their performance in many quality metrics, one of which was the HSMR, Hospital Standardised Mortality Rate. This figure showed the mortality rate of an organization against a casemix adjusted expected rate. The figure that was shown was an overall rate and did not really give insight as to where there may be specific issues. Dr Foster Intelligence made their business out of the production of tools/software to enable an organization to analyse the data to get a better understanding of what may be influencing outcomes.

5. As part of our role as RBDs, we offered to meet with each trust, to present their data prior to publication. This would give them the time not only to prepare for the press, but to better understand if they indeed had an issue that needed to be addressed. We visited all sites whether they were clients or not. For those that were clients they would be able to review the data in the 'tool suite' and understand what may be influencing the overall figure. Some trusts purchased tools from our competitors which utilized a slightly different methodology, which may not allow them to get to the same level of detail.

Data - where the data it relied on came from

6. Dr Foster worked in partnership with a unit at Imperial College headed up by Professor Sir Brian Jarman and Professor Paul Aylin. They had access to the NHS Secondary Uses Service (SUS) data. This is a repository through which NHS organizations submit their data for many uses including to allow assessment and payment. This data was updated monthly, accessed, and processed by Imperial College, who de-identified it prior to passing to Dr Foster Intelligence who uploaded it into their platform to allow clients to analyze.

How the data would be used to identify trends/variance in rates of mortality

7. There were several different statistical methods used, one was through CUSUM alerts, or Cumulative Sum control charts. Imperial College as part of their work and in their agreement to access the data, reviewed and reported any CUSUM alert that breached the 99.8% threshold, the reports went to both the CQC and directly to the Hospital Trust, the Hospital Trusts were informed of any alert, whether or not they were clients of Dr Foster. This alert level was fixed at a high threshold, which gave a probability of a false alarm of less than 0.1%, higher than that shown in the software which was set at a false Alarm Rate (FAR) of 1%
8. The organizations that had access to the Dr Foster tool suite had the ability to view CUSUM alerts at a lower threshold and therefore in theory, could identify if there appeared to be outcomes that were "out of control" they may be detected sooner

How the software would produce alerts when mortality rates were outside of the expected range

9. The software had several ways of showing alerts and trends and the user could set up the threshold to configure what was viewed.
10. There was a visible dashboard that would show the data split by diagnosis and procedure groupings to show where there was any significance whether that be

- through a CUSUM alert or overall significance during the period using confidence intervals and control limits (These are two different methods of measurement)
11. Imperial College provided and applied the methodology which basically took all the acute in hospital data set and through logistic regression had assessed a number of possible influencing factors on in-hospital death (to use the mortality indicator as an example)
 12. Essentially, the software would easily alert through red and green or a number above/below 100 whether or not there had been more deaths than you would have expected if that same case mix had been admitted to other hospitals in England. There were several factors considered in order that the spells of care were measured as a like for like comparison. (See Exhibit JC/1 for risk adjustment factors)

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Any factors that would affect the quality of the data/output from the software.

13. The data within the software heavily relied upon accurate and complete documentation which stemmed all the way back to the notes of the responsible clinician at the time. The Dr should document completely at each episode of care and the records should indicate an accurate primary diagnosis, ie the main condition treated during the stay, along with any related comorbidities, as these have to be considered when treating the patient holistically. This data once captured, (previously in a written form), is then translated into code to indicate the relevant diagnoses (ICD) or procedures (OPCS) that were treated/administered during the patient's stay in hospital.
14. Coders must follow extremely strict rules and can only directly translate what they see written in the notes at that point in time. Therefore, if the clinician has written a sign or a symptom being treated, rather than a specific diagnosis then that is what will appear in code.
15. This code was then grouped into Health Resource Groups (HRG) for the purpose of payment, payment is allocated dependent on the complexity of the spell of care (a spell is measured as the time within one hospital Trust)
16. Some hospitals data quality was of a superior standard, ie more complete, captured complexity more accurately and submitted on time. If a trust submitted poorer quality data for example showed a higher level of signs/symptoms rather than a definitive diagnosis this MAY impact the outcomes against an expected rate, it could also affect payment. I will lay out an example below, extreme but it will demonstrate the impact of accurate documentation and coding.
17. A patient is admitted to the hospital as they are breathless, they are breathless because they have a cancer of their lung. If the clinician and coder indicate the patient merely had dyspnoea (breathlessness) as opposed to a lung cancer, then the mortality risk

score allocated to that patient would be much lower than that allocated to a patient shown to have lung cancer; therefore the deaths would be higher than expected. The converse was occasionally true as organizations started to understand the measurements, if a spell captured more complex detail than may have strictly applied then the risk of death would be shown as higher and therefore there was the potential for the mortality rate to measure as less than expected. The second example was rarer and occasionally occurred due to misinterpretation of coding rules.

18. It should be noted that there was a known variation in the submission of data relating to still births, ie some hospitals submitted the data as an episode of care and others did not (despite the rules at the time). The variation in this meant that the clinical classification sub-group that these episodes fell into may show higher rates of mortality at some sites than at others purely due to inconsistency and data quality. For this reason, Imperial College did not monitor this group. We, however, would advocate monitoring of crude rates and trends locally.

Communications with Countess of Chester

19. The Countess of Chester was not a client of Dr Foster, however on an annual basis as an RBD, I visited the Trust and met usually with Tony Chambers, Ian Harvey and I believe Alison Kelly on one occasion. The annual meeting was to present their results that were about to be published in the Hospital Guide. The meetings took place to allow Trust not only to understand and explore where they were outlying but also to prepare themselves for the press.

20. As an RBD in order to interest the organization to purchase access to the software, I would prepare reports on their data and meet usually with Tony Chambers and Ian Harvey to highlight any potential areas of focus. I would occasionally put this detail into a report/presentation format and share with the organization but I would often go live into the software to demonstrate how to access and interrogate the data. The data presented through the platform was usually around 2-3mths old at the time of upload into the tools.

21. I would often focus on the orthopaedics specialty as that was Mr Harveys expertise. I did however show where there were trends moving upwards live in the software. I recall a conversation about neonates as there appeared to be an increasing trend of mortality. I believe I asked if they have a level 3 NICU, as if an organization had a tertiary unit it could impact the outcomes, as they would have a casemix that was potentially more complex and not all complexity could be captured in the data. I cannot confirm the dates that I last visited, as I do not have access to my diaries or

any documents from that period. I believe the last time I visited was around December 2015.

22. It was often stated during meetings, that their data was NOT truly capturing the complexity of their patients and it was therefore possibly influenced the results as they were shown.
23. My nursing background helped me to paint a picture around the data and during meetings I would offer points for consideration as to what may influence certain outcomes whether they be data related or indeed system/service/process.
24. I met with Ian Harvey separately a couple of times at the request of himself and Tony to review in more detail some of the findings. I understood they were being passed to coding to review but I cannot confirm how much more was done as I was not working directly with them at the time.

Documentation

25. I no longer have access to any reports or documents shared as I left Dr Foster in 2017. I have tried to contact Dr Foster on this topic via their local representative, Anna Crowther. I indicated I wanted to speak with her re this case, she responded saying she could not discuss, I followed up to say I didn't want to discuss as such but needed to make them aware what I intended to do, she has not responded.
26. I also called their telephone number on the web and it goes through to a helpdesk where I left a message but have not had a response.

Statement of Truth

I believe that the facts stated in this witness statement are true. I understand that proceedings may be brought against anyone who makes, or causes to be made, a false statement in a document verified by a statement of truth without an honest belief in its truth.

Signed: **Personal Data**

Dated: 9th April 2024