

Using Accurate, Trusted, Appropriate data for Invoice Reconciliation

The long term use of Section 251 support for invoice reconciliation is recognised to be unsustainable and requires a solution.¹ Nothing in this approach should require additional work by frontline clinicians, although some secondary care systems will require changes to deliver the data needed for reporting. There must also be oversight arrangements, to which we come later.

Ending the process of s251 support for invoices is the recognition of a fundamental truth – the privacy of those receiving any treatment should not, and need not, be compromised for the normal payment of invoices. Carefully designed data products should allow this to happen without reference to individual identifiers. Such data products will still be sensitive, due to the necessary presence of small counts, but they need not always be individually identifying.

This proposal removes the ‘part 2’ of invoices (which is the part that requires the s251), by having NHS Digital assert that that care was provided and has not been previously charged for according to the clinical records to which it has access.

Fundamentally, there is a need for the care providers and commissioners of care who lead on this work to answer a simple question: **What information is specifically needed, for what purposes?**

Solutions involving data lakes / ponds / etc. avoid answering that question. They break at hard administrative boundaries – this proposal doesn’t have any such failures, and even works for the borders of Wales / England / Scotland.

Data products produced for the purposes of invoice reconciliation should be about *treatments*, not individuals. Several individuals may be included in a single treatment count, and several treatments may be attributed to an individual. Such counts operate at an organisation level, for a stated period of time. Aggregated counts on treatments are not data relating to an individual-level record, and is unaffected by the recent introduction of the National Data Opt-out.

Invoices specify which treatments, the volumes, and for which time period(s) they are being billed. Reconciliation simply looks to check that invoice volumes do not exceed treatments marked within the medical records of patients under that funder, for that institution, for that time period.

Counts of treatment by provider and area can be derived from current data flows (SUS).

Where treatments being invoiced diverge from those being prescribed, for any specified time, they can then be more closely examined. This should limit the scope for fraud within the

¹ See CAG minutes on historical approvals.

invoicing system, as it is treatments that are charged for and controlled, not individuals receiving treatment.

It is possible to implement a system for invoice reconciliation that would save a vast amount of time and resources over the current process, which requires manual processes at both the sending and receiving NHS bodies, to validate the data within. In the common cases, all parts of that can be automated.

Such an approach would also allow effective generation of open data around spending on items and counts in line with NHS England's and Government's commitments to transparency. Apart from the specific contact and payment details of the organisations involved, the details of any invoice which didn't include small numbers should be entirely publishable. An expansion of the HES Data Interrogation System (HDIS) facility could provide relatively straightforward access for bodies to request their own statistics, produced automatically into the future according to their remit.²

Additionally, all human-readable documents (i.e. invoices capable of being printed), must include a machine-readable barcode³, to minimise errors from repeated retranscription.

Why the *status quo* is broken

The regular publication of an adequate variety of standardised measures for commissioners should (also) provide for meaningful cross-checking. So if one particular measure is prioritised for a period, while the figures for that measure should hopefully improve, the publication of other measures alongside and related to it should be able to show whether or not that "improvement" was at the cost of regressions in other measures – and whether the 'net overall effect' has been positive. Such changes and trade-offs may be acceptable, and that is a valid matter for public debate, but the metrics should always ensure they can be debated in an informed way.

The various consultancy companies offering services to the NHS can also watch for the effects of interventions – either by themselves or their competitors – and the trade-offs inherent in those processes can also be known. These statistics must all be produced automatically and published on a regular, fixed cycle with the process assured by a trusted body (which, currently, is NHS Digital).

² Relatively quickly, we would expect a set of figures that almost everyone wants to be identified/defined, which (over time) should be standardised and published - but which, in the interim, can be created 'on demand' for each area within HDIS, while standardisation and approval is progressed. Such a mechanism would also allow for the 'decommissioning' of some s251 flows, as it provides a rapid-response production capability for any information that is currently created using individual-level data but which gets missed from the first tranche of structured published figures - and a rapid-response function for emerging priorities.

³ or QR code, which allows more information to be encoded.

One of the key underlying drivers for the mass sharing of bulk personal datasets is a lack of trust between bodies and divisions *within* the NHS. Simply put, accountants in one part of the organisation do not trust the accountants in another not to mislead or to offer them misleading information. While regular, ongoing statistics can be produced by NHS Digital using information provided to it, the Department of Health must be clear that penalties for providing false or misleading information⁴ apply here also.

For those familiar with the GP Extraction Service (GPES), which allows approved and agreed queries to be run on a GP practice's dataset, and for the aggregated outputs to be returned to the requestor – all observed by NHS Digital, with multi-party governance across the system – this may sound familiar. It should.

Deconflating confused incentives

Producing CCG/GP-level aggregations of events will allow hospitals to be very clear about areas where A&E is providing care that should be provided by a GP, or similar. These are then issues which the CCG/GPs in the relevant area should be encouraged to take up. Some of the datasets may also focus on or identify where other steps could be taken, e.g. an area with a disproportionate number of citizens having serious car accidents may wish to have an NHS-associated safe driving campaign to reduce the number of accidents – prevention being better than treatment.⁵

One alternative that has been proposed is the possible merger of invoicing into the definition of direct care, “as happens in the US”. However, not everything in the US health system is a model to replicate. The adoption of such an asinine proposal would be a dramatic shift for the NHS, representing the final prerequisite for the end of the UK's ‘single-payer’ model of healthcare. Those proposing any such change (including parts of NHS England) must be extremely clear about the ramifications of their proposal.

We note the legal title of NHS England is the “NHS Commissioning Board”. Knowing what services to commission is the most difficult thing it does, so any decisions must be fully transparent, with all of the various metrics informing those decisions being published.

Attempting to cram audit and verification into the same data product with every other purpose will result in problems. Where a particular aggregated statistic raises questions, those questions should be asked, and answered, by the relevant bodies – with those who hold the data requiring justification. Only when trust between bodies has demonstrably broken down should a third

⁴ Sections 92-94, Care Act 2014, c. 23, PART 2: False or misleading information:

<http://www.legislation.gov.uk/ukpga/2014/23/part/2/crossheading/false-or-misleading-information/enacted>

⁵ An existing example of just such a use case was ‘Getting the Right Treatment’ in Tower Hamlets:

<http://www.thensmc.com/sites/default/files/Getting%20the%20Right%20Treatment%20FULL%20benchmark%20case%20study.pdf>

party audit / verification process be engaged, and any provider or body with an excessive number of such audits may be worthy of additional commissioning scrutiny.

A process to list the statistics required

The questions that commissioners and accountants may wish to ask will vary for a range of reasons. However, as (to be lawful) purposes must be defined, the complete list of these questions is finite and can be enumerated – meaning that, over time, the aggregated, properly-treated answers can be generated automatically.

These non-disclosive output datasets, produced and published in a timely fashion, could also be used for other purposes, e.g. to tell if “A&E is busy today”. The full list of datasets available, and their frequency of publication, should be in a Register that is itself published as open data. This would facilitate and enable informed discussion and debate on new measures, and between measures – even, and especially, measures proposing new models of care or treatment.

The alternate world, which ignores the compelling argument for more appropriate, aggregated counts, would be one of the continued mass ‘sharing’ of bulk personal datasets to non-medical staff and others, for purposes beyond direct care. Continuing down this path puts the reputation of – and public confidence in – *all* types of secondary uses at risk.

Were the opt-out offered by the Secretary of State in 2013 and (albeit imperfectly) manifested in the NHS Constitution to be revoked in one of the fits of bureaucratic intransigence for which NHS England is renowned, we believe this would lead to a proliferation of patient actions beyond the NHS’s control, such as DPA Section 10 notices⁶ prohibiting processing, and challenges under broader Human Rights law.

The NHS should seek an end state where no individual-level clinical data is required for invoice reconciliation. There is no reason for this not to be the case before the end of the next spending round.

The NHS must run on evidence-based policies that relate to what is best for citizens’ health and care, within known constraints. The widespread use of bulk personal datasets as opposed to properly researched, well-designed and targeted metrics and specific measures for specific commissioning purposes, will not only perpetuate some of the worst data handling practices; it will in all likelihood fail to improve understanding, efficiency or care.

NHS Protect

⁶ Section 10, Data Protection Act 1998: <http://www.legislation.gov.uk/ukpga/1998/29/section/10>

Where an NHS body believes figures are being fiddled, that constitutes fraud – or an offence under Sections 92-94 of the Care Act⁷, if it relates to care – which is within the remit of NHS Protect to prosecute. If there are insufficient aggregated statistics to meet or measure a particular standard, then additional ones should be designed and produced, at minimal burden to the providers themselves.

NHS care providers should not be playing forensic accountant; that is the job of NHS Protect.

Questions towards implementation

Some initial thoughts on data, that will fall roughly into two categories:

Data for A&E:

- Admissions (and source, and time since last admission)
 - will likely need numbers of incidents, repeat incidents, severity, time period, by CCG/GP of patient (based on PDS)
- The nature of those counts – and the various criteria for them – should be agreed by hospitals, commissioners and medics.

Data for Commissioning around Hospitals:

- What metrics do Commissioners need, from the data held by hospitals or elsewhere?
- Where there is a clearly identified need, design an aggregated tabular dataset.
- Publish aggregated figures at CCG level, with small numbers suppressed
 - unsuppressed or lower geographies may be released to CCG for authorised internal use via a secure electronic environment, allowing simple relevant comparisons between appropriate other geographies

medConfidential

This paper was originally written in 2015, and updated in September 2018.

⁷ <http://www.legislation.gov.uk/ukpga/2014/23/section/92/enacted>