

# Networked Data Lab Wales

## Shielding patients during COVID-19.

### *Methodology Output 3: Changes in patterns of secondary health care use among shielded patients*

<b>Description</b>	Supporting document for Networked Data Lab Output 3. Summary of methodology used to link the shielding cohort and routinely collected secondary health care data to characterise their use of the health care services before COVID19 and during the shielding period.
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This output was based on the shielded patient cohort that was produced as the result of Output 1 for the Networked Data Lab Wales. Output 3 uses a similar approach to output 2; linking the shielded patient cohort with secondary care data from Patient Episode Database for Wales (PEDW) with the addition of Outpatient Database Wales (OPDW) and Emergency Department Dataset (EDDS). The purpose of linking these datasets together is to identify shielding patients use of the secondary care services prior to the COVID-19 pandemic and the observed change in use during the shielding period.

The shielded cohort produced from Output 1 had 128,690 shielding individuals in Wales; this cohort was taken and linked to all previous secondary health care data possible for these patients between the dates of 01/03/2018 and 31/07/2020. Unlike Output 2, this time we only looked at records where the attended date (OPDW) or admitted date (EDDS and PEDW) fell between the desired date range, we did not take into account records that had a discharge date within this time period but were admitted before the 01/03/2018. This produced a cohort size of 82,000 patients which changed in size depending on the variable dataset:

- For the inpatient dataset: records of hospital stays with no information regarding the reason or duration of stay were omitted.
- For the COVID-19 related admissions dataset: this only included admissions that had the ICD10 codes U07.1 and/or U07.2 at some point in diagnosis records.

- For the outpatient and accident and emergency datasets: there were cases where patient information did not match such as gender, in this instance these records were omitted.
- For the deaths dataset: this included any of the patients on the shielding list that died between the dates of 01/03/2020 and 31/07/2020.

For the analysis of this cohort:

- Age and deprivation were assigned following the methods already described in “*Networked Data Lab Wales Shielding patients during COVID-19. Output 1: Demographics of the shielded patients*” (version 1.1).
- In instances where a patient was not known at a Welsh Lower Super Output Area (LSOA) on 01/03/2020, they were categorised as unknown for deprivation. These patients were omitted from the Output 3 analyses due to concerns in statistical disclosure control.

### **Acknowledgments**

All data were anonymised and linked within the privacy protecting SAIL Databank. We used anonymised data and therefore we are exempt from National Research Ethics Committee (NREC). An Information Governance Review Panel (IGRP) application (Project ID: 1224) to link these data has been approved. This study makes use of anonymised data held in the Secure Anonymised Information Linkage (SAIL) Databank. We would like to acknowledge all the data providers who make anonymised data available for research.