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P055 -Expanding and exploring AKI data submitted to the renal registry to gain better insight into patient cohorts of inpatients at an large acute hospital.

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Since the introduction of the AKI alert data that is submitted to the renal registry hospitals provides with a wealth of data regarding patients with AKI, in the form of 3 monthly UK renal registry reports. These reports include all tests processed by the laboratory and do not differentiate between inpatient and outpatient testing, making it difficult to assess whether specific areas (such as hospitals) are improving if using this data alone.

To develop a deeper understanding of AKI in hospital inpatients, and to use this to begin to find areas in which to make improvements we have combined the renal registry data with more rich AKI data gained from using the baseline data submitted to the renal registry. We gathered data such as AKI frequency, assessment of the maximum stage of AKI and the progression (worsening) and regression (improving) of AKI during patients inpatient stay. The renal registry data informs us that there were 1717 adult patients during April 2018-June 2018 that had AKIs, with a small number of AKI stage 2/3 patients. When we review inpatient data we find there are 1394 inpatients, and utilising the richer data set we are able to find the maximum AKI stage that the patients reach and can see that there are more of the significant AKIs. This is demonstrated in Table 1.

The renal registry report data informs us of the starting AKI but does not give us information about the number of AKI alerts that each patient had during their hospital spell, or whether their AKI improved or worsened. Of the 1394 patients there were 4186 AKI alerts, averaging 3 AKI alerts per patient, but when we investigate this more deeply we find that these are not evenly distributed across the patients, with the distribution ranging from 1-41 AKI alerts. There were 654 patients that only 1 AKI alert with 90% of these being AKI stage 1's there were a number of AKI stage 2/3. Transient AKI stage 1s are often thought to be insignificant however when we review these we find that these have an associated mortality, this data can be found in table 2.

When looking at the 740 patients who had more than 1 AKI alert we can assess the progression and regression of patients with AKI. There were 423 patients who have no progression/ regression of their AKI despite having more than 1 AKI alert. The breakdown of these can be found in Table 3. The remaining patient's progression and regression is variable with 1 patient with 41 AKI alerts with multiple progressions and regressions, it might be possible to developing a deeper understanding of patients who have multiple AKI alerts and methods of preventing them.

The renal registry reports provides an excellent basis to begin to develop an understanding of AKI in the inpatient population, but to able to make improvements that will influence patient outcomes then it is necessary to explore the data in more detail.