Morgan, Reuben 2020 Digital v Human Pharmacist: Can technology be used in the clinical validation of Rheumatology prescriptions? *International Journal of Integrated Care, 21(S1)* : A334, pp. 1-8, DOI: doi.org/10.5334/ijic.ICIC20216

CONFERENCE ABSTRACT

Digital v Human Pharmacist: Can technology be used in the clinical validation of Rheumatology prescriptions?

ICIC20 Virtual Conference – September 2020

Reuben Morgan,[1]

1: Swansea Bay University Health Board, Swansea, United Kingdom

Introduction:

Currently pharmacists clinically validate prescriptions written by hospital clinicians for the supply of medicines to patients in their own homes via the Homecare Medicines Services. This ensures all prescriptions leaving the hospital are accurate, safe, follow the treatment pathway, meet appropriate funding criteria and the disease state is monitored appropriately.

The organisation has invested in their Pharmacy Homecare Management team to maximise the use of the Homecare Medicines Services, in order to increase hospital capacity, reduce medicines expenditure and embed robust financial governance. This means clinical pharmacists are required to check more homecare prescriptions, taking them away from patient facing work on wards.

Aim:

To explore whether technology can be used to undertake Homecare prescription validation to the same standard as clinical pharmacists within rheumatology.

Method:

The prescription validation process was mapped out with clinical pharmacists and a technology partner (human+) employed to build a 'BoT' to mimic the pharmacist and act as a digital member of the workforce. Rheumatology was chosen because it makes up 44% of homecare, prescribing follows a defined treatment pathway with a limited number of drugs and there is a specialist rheumatology pharmacist. The specific prescription template and the advanced clinical system (Cellma®) are receptive to automation. Robotic Process Automation (RPA) was employed to automate the pharmacist accessing and checking the clinical legacy systems and shared drives. An RPA architect worked on-site to build the 'BoT' using Blue Prism platform.

Results:

Five pharmacists recorded the time taken to validate rheumatology prescriptions over one month. The average time per prescription was 112 seconds, not including travel time to the homecare team.

The BoT validated batches of prescriptions at different intervals throughout the day. The average process time of the BoT was 24 seconds/prescription. Different average processing times were seen throughout the day as internal IT systems run at different speeds dependent on the number of users accessing them.

BoT effectiveness was also measured by the number of 'exception' prescriptions which were unable to be validated. The BoT only adheres to the process it is taught and anything outside of these 'rules' (e.g. incorrectly spelt diagnosis) is marked as an exception.

Overall 15.4% of the 881 prescriptions processed by the BoT were rejected. The vast majority were attributed to errors in information inputted by clinicians.

Conclusion:

The BoT or digital workforce member validates prescriptions approximately five times faster than the human pharmacist.

This is a small scale study in rheumatology but it may have relevance for other clinical pharmacy disciplines and redesigning the wider workforce.

By using automated software to undertake high importance, low variance work, we can free up highly skilled humans to be on the front line in patient facing roles.