



Singapore Healthcare Management 2017

Data Analytics in Operations - Gaining A Better Overview of Waiting Time to Consultation



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What was the issue?



Waiting time to consultation (WTC) in outpatient clinics is a key measurement of operational efficiency and patient experience. Hence, it is essential to have the right collated data for relevant measurement, analysis and improvement.

Data extraction for WTC was done in a manually-inclined manner, drawing data solely from Evantek queue system. The process was tedious, **taking up to 4 hours each time**. The collation was also **only able to cover 1 week out of every quarter**.

Also, with recent expansion and development of new clinics, several clinics have started using the new 1Q system instead. Hence, the WTC data collated **did not manage to cover all clinics**.

What were the objectives?

The project hopes to:

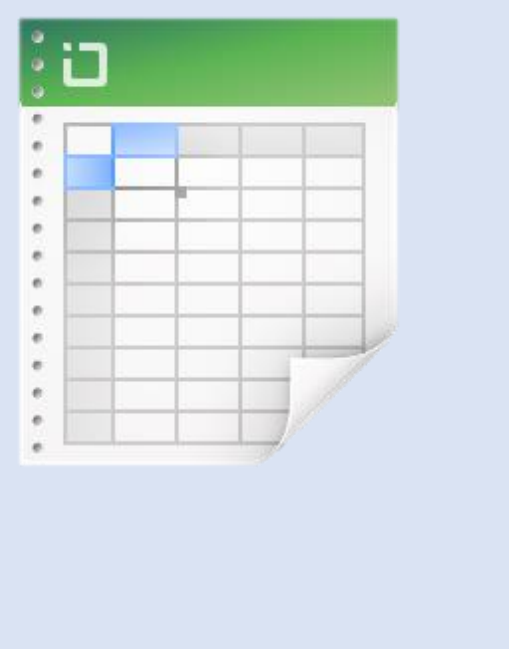
- Derive a faster method to collate data on WTC
- Derive a more comprehensive dataset on WTC



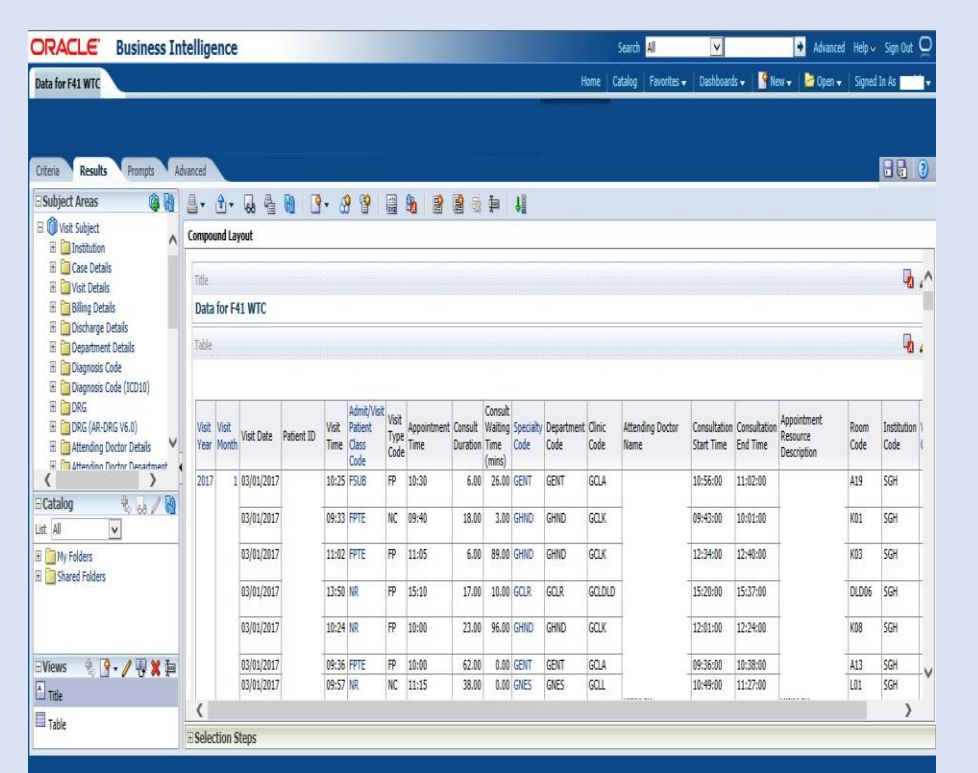
How was it resolved?



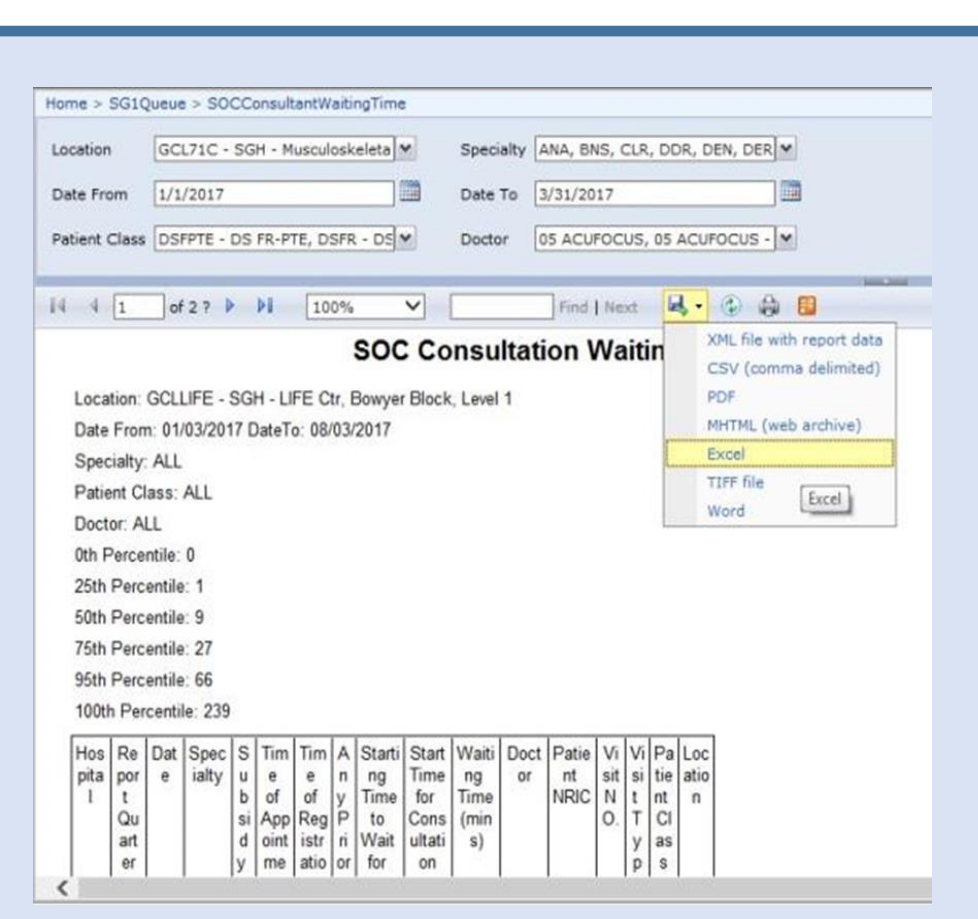
A new Excel template was created with defined criteria and formulae.



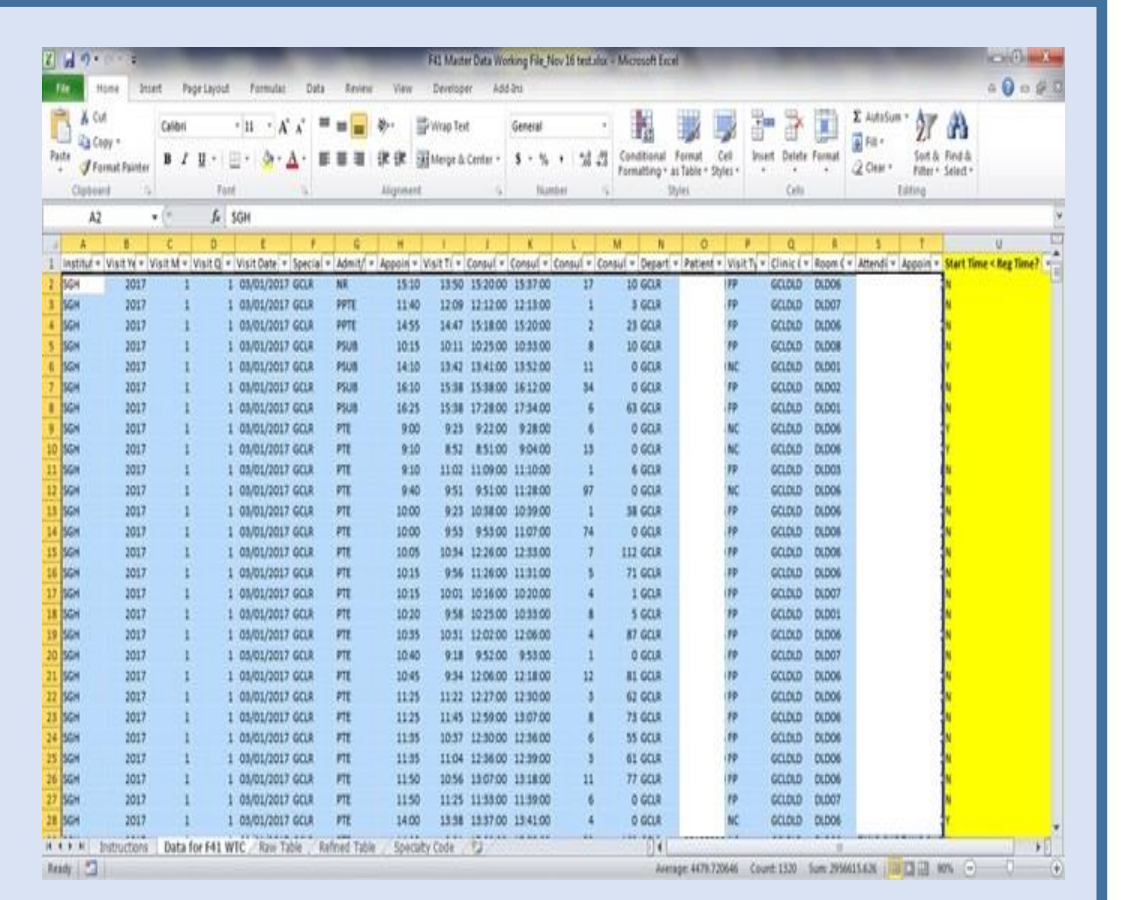
Queue data from Evantek was extracted using eHints business intelligence tool.



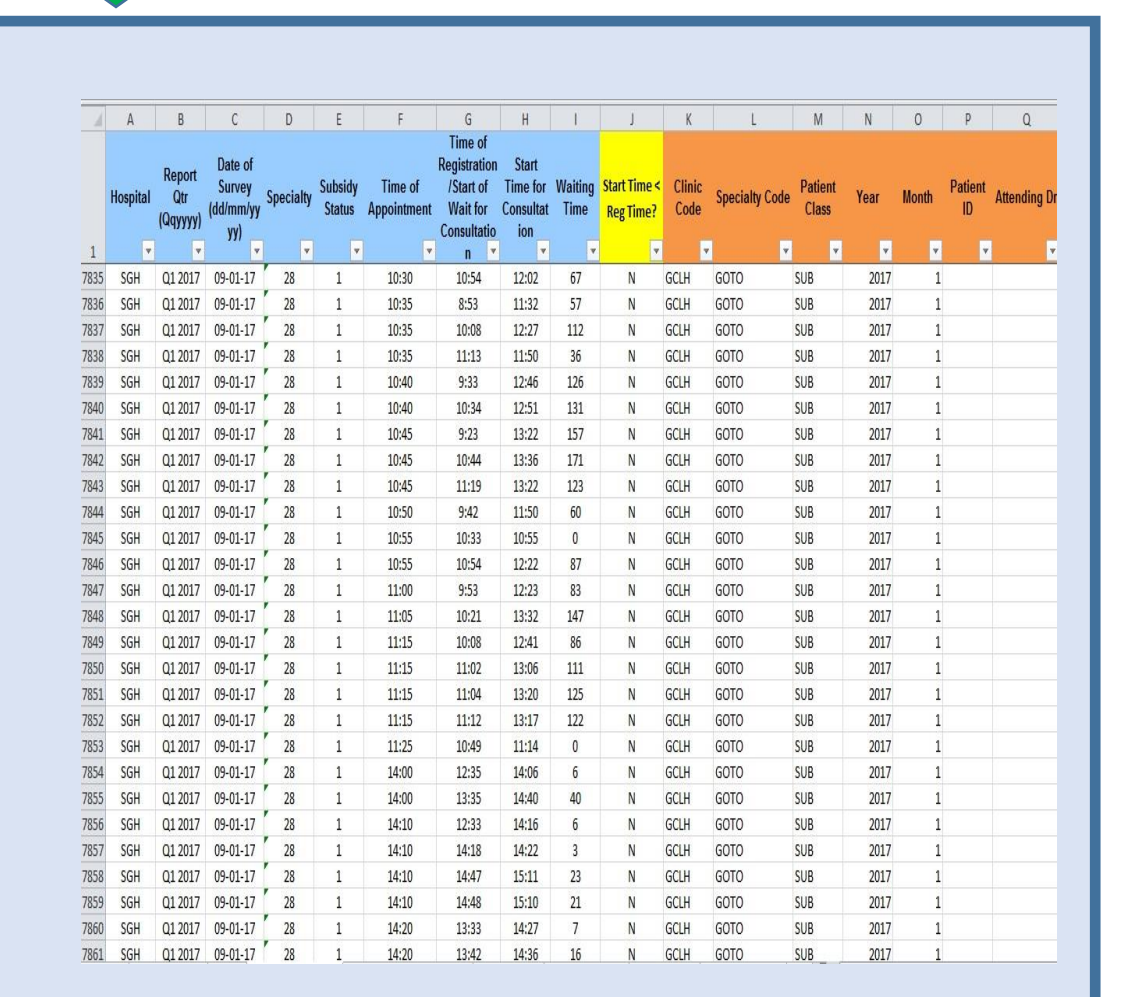
Queue data from 1Q system was extracted from its online portal page.



Data from both sources was input into the Excel template.



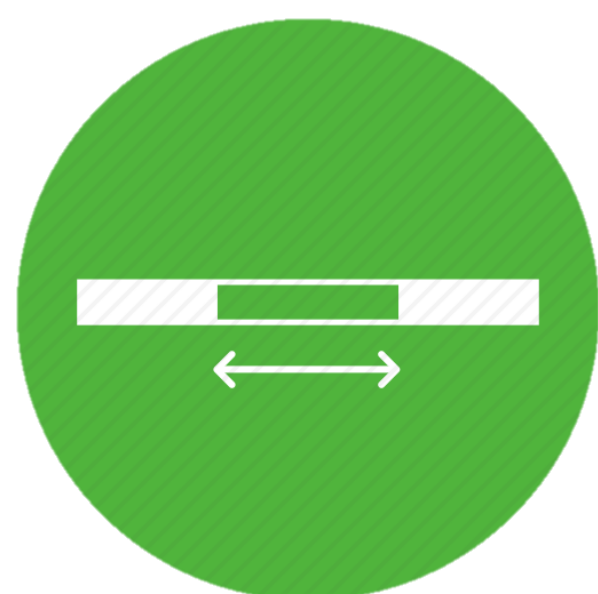
Applying defined criteria, a consolidated WTC dataset was generated for analysis and other uses.



What were achieved?



The time taken to extract and collate WTC data was significantly reduced from 4 hours to **just 15 minutes**.



Coverage was widened from 1 week out of a quarter, to the **entire quarter**.

Efficiency
Date Coverage
Clinic Coverage



Practically all clinics are covered, compared to previously just clinics using Evantek queue system.

What was learned?



- It is important to have a comprehensive WTC dataset to conduct analysis, so as to enhance patient experience.
- Through this new method, it is hoped that there is a better overview of WTC for continuous operational improvement.
- An enhancement in consolidating queue data from both queue systems into eHints is in the works, which can further streamline data extraction.