

Analysis of Vancomycin Dispatch Times

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Distribution

In all of the following figures, values where the scheduled collection time occurred > 1 hour prior to the order time were removed (n = 44). It is unclear exactly why the the scheduled collection time for these orders was back-dated to be prior to the time of ordering.

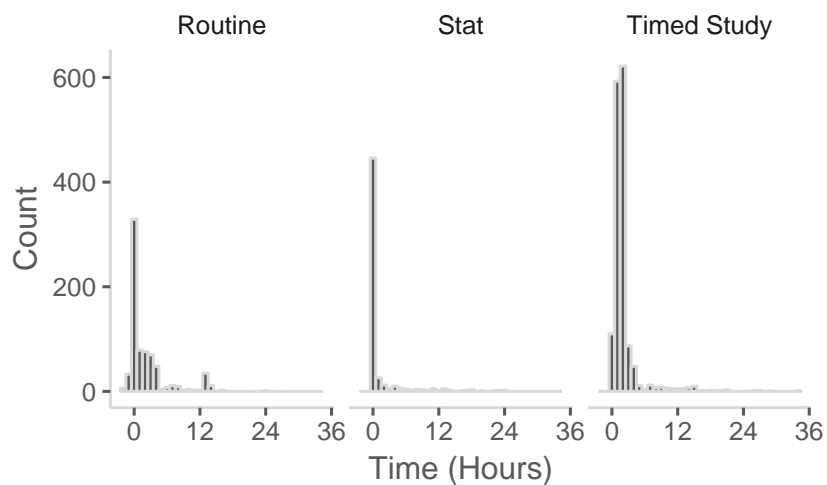


Figure 1: Histogram of difference between dispatch time and scheduled collection time

It is clear that Stat orders dispatch immediately, but Routine and Timed Study are much more variable, with most dispatching 1-3 hours before the scheduled collection time.

Table 1: Summary measures for the time from dispatch to scheduled collection

minimum	q1	median	mean	q3	maximum	na
-2.25	0.25	1.25	1.965	2	33.55	19

Table 2: Summary measures for the time from dispatch to scheduled collection by collection priority

priority	minimum	q1	median	mean	q3	maximum	na
Routine	-2.2500	0.25000	0.4333	2.238	2.783	23.80	7

priority	minimum	q1	median	mean	q3	maximum	na
Stat	-0.3167	-0.01667	0.0000	1.194	0.000	24.28	1
Timed Study	-0.1500	0.78330	1.7670	2.107	2.250	33.55	11

Labs ordered > 72 hours in advance of collection were removed.

Correlation Assessment

There is a strong correlation between the time from order to scheduled collection and the time from order to dispatch.

Table 3: Correlation between the time from order to scheduled collection and the time from order to dispatch

estimate	statistic	p.value	parameter	conf.low	conf.high	method	alternative
0.963	189.486	0	2804	0.96	0.966	Pearson's product-moment correlation	two.sided

There is little correlation between the time from order to scheduled collection and time from dispatch to scheduled collection. This suggests that the dispatch time is triggered by the scheduled collection time, regardless of how far in advance the lab is ordered, with the exception of Stat orders which dispatch immediately.

Table 4: Correlation between the time from order to scheduled collection and time from dispatch to scheduled collection

estimate	statistic	p.value	parameter	conf.low	conf.high	method	alternative
0.316	17.663	0	2804	0.283	0.349	Pearson's product-moment correlation	two.sided

There is no correlation between the amount of time prior to scheduled collection that the task dispatched and when the lab was actually collected.

Table 5: Correlation between the amount of time prior to scheduled collection that the task dispatched and when the lab was actually collected

estimate	statistic	p.value	parameter	conf.low	conf.high	method	alternative
-0.083	-4.112	0	2431	-0.122	-0.044	Pearson's product-moment correlation	two.sided

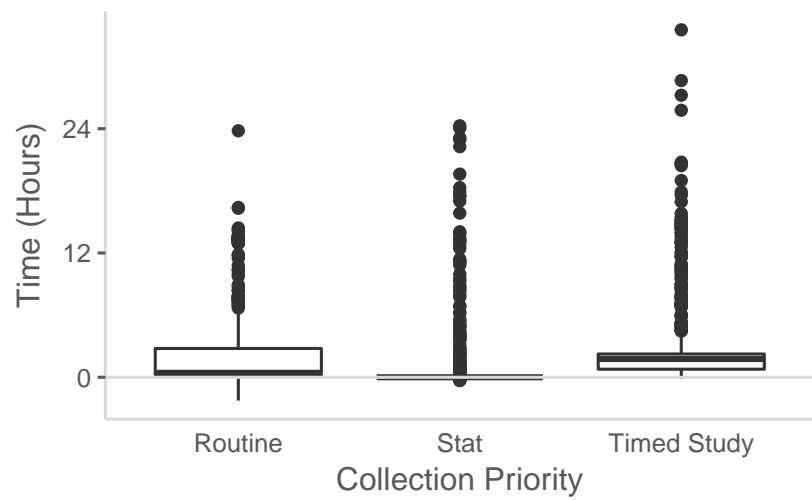


Figure 2: Distribution of the difference between dispatch time and scheduled collection time in all HVI units

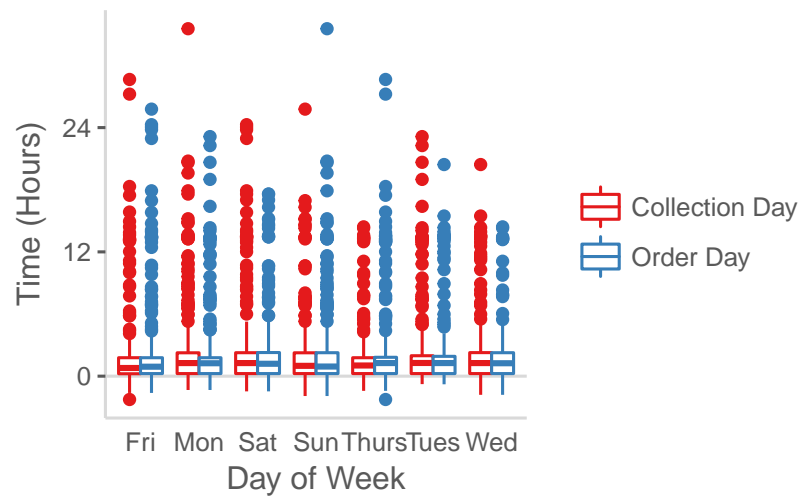


Figure 3: Distribution of the difference between dispatch time and scheduled collection time by day of week

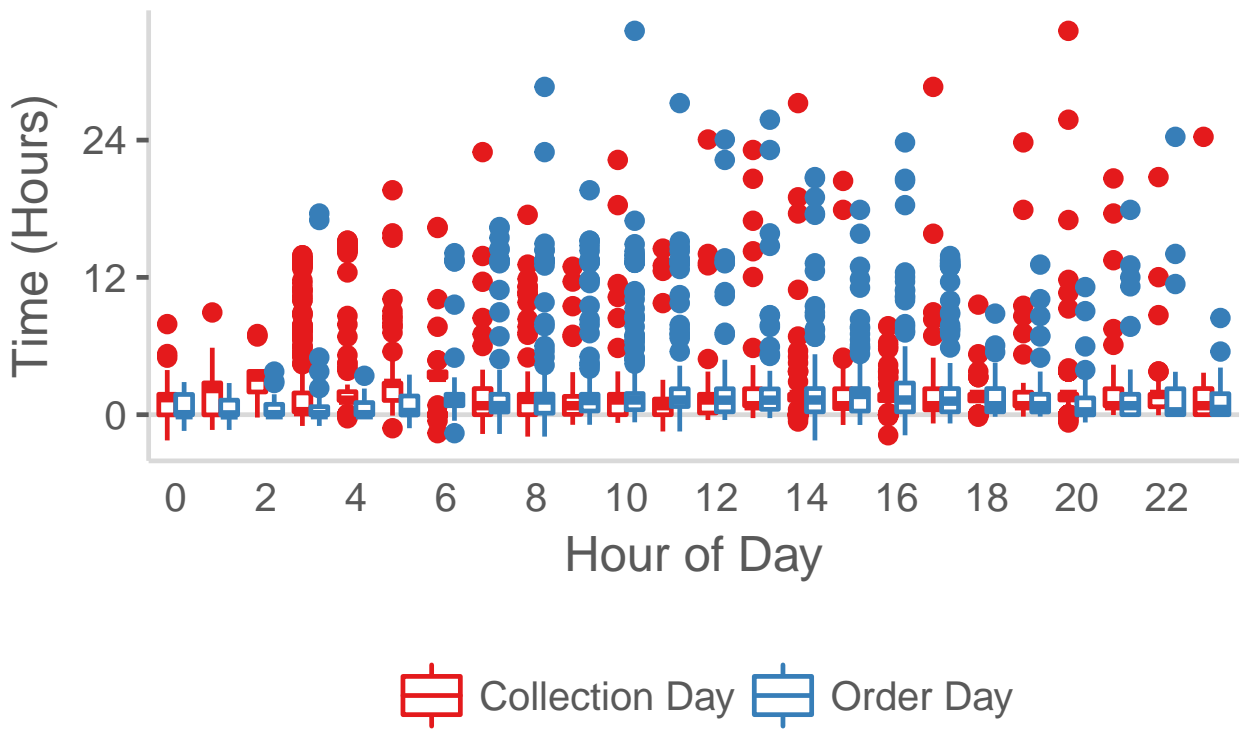


Figure 4: Distribution of the difference between dispatch time and scheduled collection time by hour of day

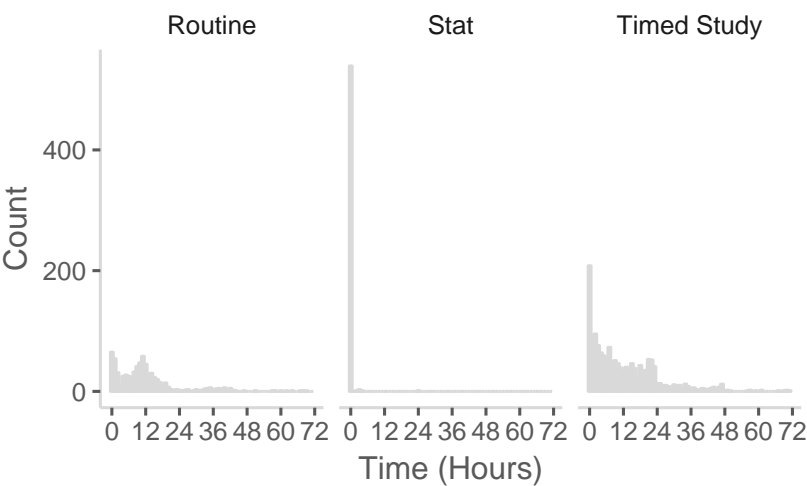


Figure 5: Histogram of difference between order time and dispatch time

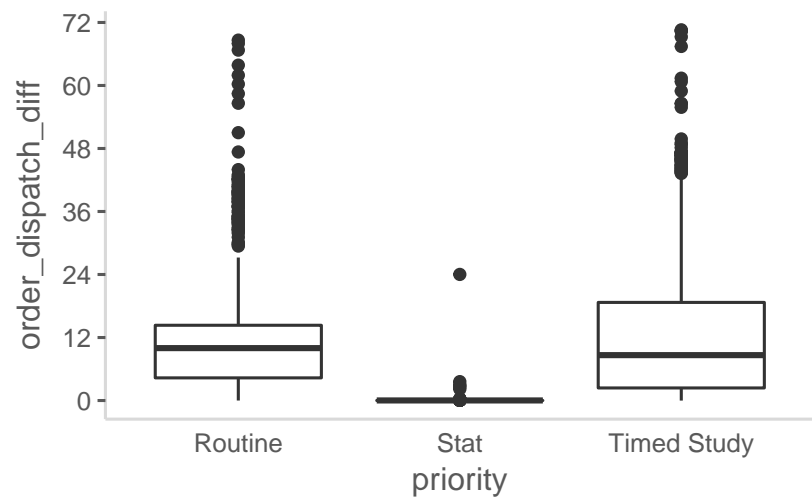


Figure 6: Distribution of difference between order time and dispatch time

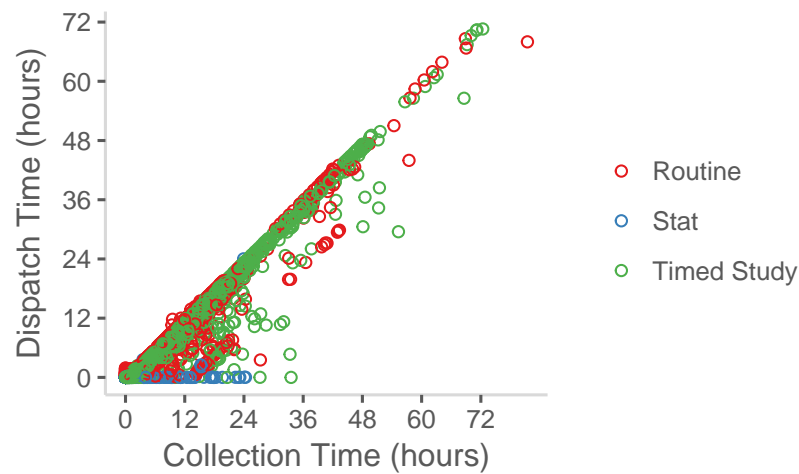


Figure 7: Time between order to scheduled collection and order to dispatch. Data with order to scheduled collection of > 72 hours were removed. Values where the scheduled collection time was prior to the order time were removed.

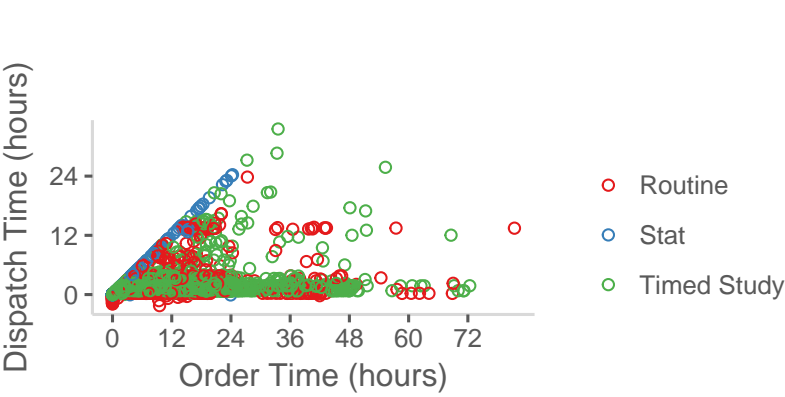


Figure 8: Time between order to scheduled collection and dispatch to scheduled collection

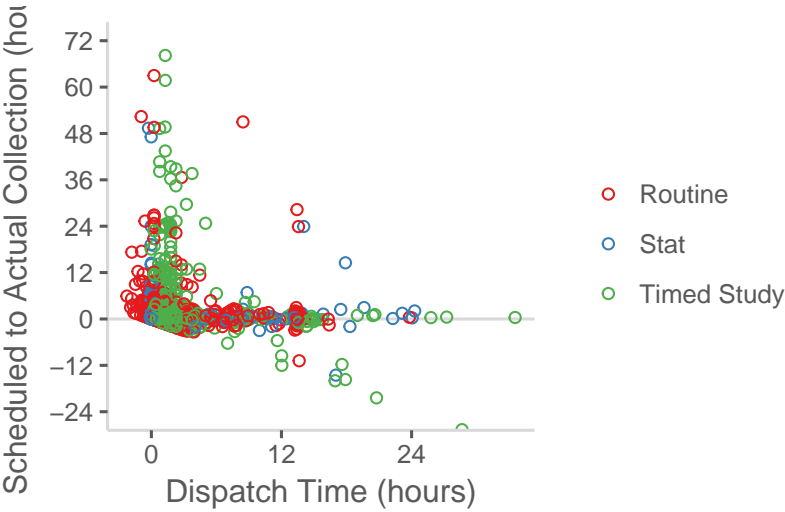


Figure 9: Time between dispatch to scheduled collection and scheduled to actual collection