Aims ‘This may take a while’ is the message in the bottom corner of the computer screen while waiting for applications to load. This is little comfort when attempting to be time efficient with stretched staffing resources. Does it take as long as we believe?

We investigated time taken for computers to open the wanted application from shutdown or lock screen on a neonatal unit in a large hospital. We surveyed doctors perceptions of time spent waiting for computers. We estimated the number of times per shift doctors used computers.

Methods Staff recorded the time using their smart phones from shutdown or lock screen to having a computer application they required useably open. The date, time and computer application were recorded on data sheets attached to each computer. We collected how many times a doctor logged onto the computers during shifts of varying lengths. Questionnaires were distributed to doctors asking them to estimate the time spent per shift waiting for computers to log in and how they felt about the speed of login times.

Results 14 doctors answered the survey. Average (95% confidence intervals of the mean) estimated waiting during shifts was 24.1(16.9-31.4) minutes. Text responses found doctors felt ‘frustrated’ at the login times being ‘too slow’ and ‘unsafe during emergencies’.

Data were recorded from 23 computers, on 127 occasions, for 13 applications. It took 147.9(128.7-165.1) seconds for the application to be usable. The fastest computer took 62.5 (34.1-90.9) seconds, statistically significantly faster than 7 others. The slowest took 345.7(138.0-553.4) seconds, statistically significantly slower than 7 others. There were no differences between applications speeds.

From shutdown it took longer than from lock screen: 179.6(140.4-218.8) versus 125.7(111.5-140.0) seconds (p=0.014). Time of day mattered: between 6am-10pm took 154.1(134.4-173.8) versus from 10pm-6am 84.0(64.5-103.5) seconds (p<0.001). Looking hourly slowest was 8-9am 247.9 (192.2-303.7) and fastest 4-5pm 85.0(54.0-116.0) seconds. The day of the week made no difference.

Over 12 shifts of varying lengths one doctor recorded a computer delay time of 67 times, with an average of 0.53(0.35-0.71) per hour. Using that data, during a 13 hour shift the expected waiting time would be 17.0(9.9-25.6) minutes.

Conclusion Doctors’ estimate of waiting was longer, but not statistically significantly so than calculated times. Waiting was longer from shutdown, about 3 minutes, than from lock screen, about 2 minutes. It took about 4 minutes to get a useable application between 8-9am. Some of the variations seem to be the specific computer. However, some of the delays may be due to the lag in the hospital network communicating to the computer at the start of the day, as many office staff simultaneously turn on computers. Having computers in clinical areas turned on, but to a lock screen prior to 8am could cut down waiting times. Our data suggests that non-urgent tasks should be completed after 9am to reduce time spent waiting. The frustration felt by doctors seems justified as up to 25.6 minutes of a shift is spent waiting, suggesting that new strategies to improve computer speeds need to be investigated.