Table 1

Summary of reported cyber-attacks/data breaches in healthcare and academic organisations during the COVID-19 outbreak

Date of Cyber-Attack	Country/Institution	Reported Details
13 March 2020	Brno University Hospital, Czech Republic	Shut down of the IT network that caused postponement of urgent surgeries and compromised emergency medical care (https://www.zdnet.com/article/czech-hospital-hit-by-cyber-attack-while-in-the-midst-of-a-covid-19-outbreak/).
13 March 2020	World Health Organization (WHO)	Creation of a malicious site mimicking the WHO internal email system which aimed to steal employee passwords (https://tech.newstatesman.com/security/who-cyber-attack-covid19).
14 March 2020	Hammersmith Medicines Research Group, UK (COVID-19 Vaccine Trial Group)	Ransomware attack resulting in the publication of personal details of former patients, and a failed attempt to disable the network (https://www.computerweekly.com/news/252480425/Cyber-gangsters-hit-UK-medical-research-lorganisation-poised-for-work-on-Coronavirus).
16 March 2020	United States Health and Human Services (HHS) Department	Unspecified attack on the HHS servers (https://tech.newstatesman.com/security/us-health-human-services-department-cyber-attack).
22 March 2020	Paris Hospital Authority (AP-HP), France	Unspecified attack on AP-HP servers (https://www.bloomberg.com/news/articles/2020-03-23/paris-hospitals-target-of-failed-cyber-attack-authority-says).
4 April 2020	UK and Spanish Healthcare Workers	Ransomware attack attempting to deactivate anti-virus software (https://www.computing.co.uk/news/4012969/hospitals-coronavirus-ransomware; https://www.digitalhealth.net/2020/04/neither-covid-19-nor-cyber-criminals-care-who-gets-infected-and-suffers/).
13 May 2020	UK's ARCHER Academic High-Performance Computing (HPC) network	Exploitation of login nodes forcing rewriting on all user passwords (https://www.theregister.com/2020/05/13/uk_archer_supercomputer_cyberattack/).
13 May 2020	Bam Construct and Interserve (Companies who helped construct temporary COVID-19 hospitals for the UK's National Health Service)	Unspecified attack (https://www.constructionnews.co.uk/contractors/bam-construct/bam-construct-hit-by-cyber-attack-13-05-2020/).
10 June 2020	Babylon Health (Appointment and video-conferencing software for NHS doctors)	Data breach due to software error (https://www.mobihealthnews.com/news/europe/babylon-health-admits-gp-hand-app-data-breach-caused-software-issue).
16 July 2020	US, UK and Canadian authorities	Alleged unspecified state-sponsored cyber-attacks on institutions working on COVID-19 vaccines (https://www.theguardian.com/world/2020/jul/16/russian-state-sponsored-hackers-target-covid-19-vaccine-researchers).