

2020 Pathology Accomplishments

The year 2020 presented overwhelming and unrelenting challenges. As a team, we played a pivotal role in supporting BWH's response to the greatest healthcare crisis of the past 100 years. In the earliest days in the pandemic, you developed one of the first COVID PCR tests in the state. Through testing and patient care, you demonstrated the importance of pathology and solidified our role on the healthcare team. To watch your ongoing flexibility and adaptability was amazing. You stepped outside of your normal responsibilities and volunteered to work additional hours in other areas of pathology or hospital to ensure we could support our patients 24/7. You also worked effectively and collegially with our MGB colleagues and neighboring institutions who assisted by providing their expertise, resources and time. Importantly, many of you played a critical role in community outreach including supporting COVID testing at "Stop the Spread" sites. At the same time, you continued to provide excellent care for our COVID positive patients. During 2020, you helped care for 1,370 COVID inpatients, 109 of which were treated in the ICU. The laboratories provided rapid 24/7 diagnostic testing. Kraft and Blood Bank started the ESCAPE clinical trial for plasma vs convalescent plasma, and froze dozens of red cells to ensure adequate blood supply. The trainees played critical roles in managing patients, performing testing, staffing call centers, aliquoting specimens and handling (frequent!) pages from clinical teams inquiring about COVID testing status. You maintained essential clinical services despite the risks of handling potentially infected tissues and fluid specimens. And all this could not have been accomplished without the support of the information systems, administrative and financial staff. **You are all truly remarkable!!**

Quick Stats

- You received **206,596** COVID samples in our processing areas.
- You performed **50** autopsies on COVID + decedents.
- You validated, implemented, and interfaced **7** different platforms for COVID testing, including **34** new Sunquest codes.
- You aliquoted **45,540** specimens to send to the Broad for COVID testing.
- You performed **60,374** COVID tests in Microbiology (Increased testing by **90%**)
- You performed **67,862** COVID tests in the CAMD (Increased testing by **191%**)
- You increased send-out testing by **99%**
- The phlebotomy team did draws on over **800** positive patients.
- You **re-engineered** your workflows, break spaces and schedules to enable safe distancing and re-imagined our processes for patient blood draws.
- You validated **5** different COVID serology assays, of which **2** were interfaced and implemented, and performed **8,163** COVID serology tests.
- You filled **56,500** OT hours to support patient care during the pandemic and throughout FY2020.
- You **overcame supply shortages** of reagents, media, swabs, blood gas syringes, pipette tips, vacutainers, gloves and more.
- You ran **450-530** blood gases per day during the April surge and validated two additional platforms (iStat and RapidPoint) for blood gas testing.
- You interfaced **8 new assays**, wrote **26 new rules**, and developed **3 new software applications** for COVID interpretation and reporting, including the software that managed and resulted **35%** of COVID tests (**245,745 to date**) at MGB.
- You validated the **COVID Ab** in our IHC laboratory for use as a diagnostic marker and to study the pathology of COVID-19
- You performed **>30,000** pre-operative COVID-19 tests to allow patients to receive critical care while keeping our front-line care teams safe.
- You supported the training of **250+ staff** to perform point of care testing at the Boston Hope field hospital in the Spring.
- Our Kraft donor team was invited to Gillette Stadium from April-July and collected **1,300 units of whole blood**, and our Apheresis nurses were redeployed to Dialysis and IV teams for COVID patients.

2020 Pathology Accomplishments in addition to COVID

- You welcomed and trained **119** new lab team members and **76** temporary/agency staff
- Your **research and publications** furthered the academic mission of the hospital
- You implemented **Media Lab** for electronic SOPs
- You had successful **Joint Commission and ASHI** inspections
- You implemented **new glucometers** at BWH and continue to support their implementation across MGB
- You furthered our Safe Care Commitment including achieving **99% compliance** with hand hygiene in inpatient phlebotomy
- The Kraft RN team introduced an algorithm for allogeneic stem cell collections, reducing collection time by **30-50%** to the benefit of the donor, lab storage space, collection efficiency
- You implemented new testing for leukemia (**FLT3-ITD**), colon cancer (**FIT**), solid tumors (**Oncopanel Vega**), epilepsy (**lamotrigine, levetiracetam**), clotting disorder (**DOACs**) and systemic inflammation (**IL-6**)
- You implemented new instrumentation for antibiotic susceptibility (**Vitek**) and cancer care (**core lab assays in Foxboro**)
- Tissue typing worked up over **624 donors** for New England Donor Services
- You worked with ORs to **improve Massive Transfusion Protocol** and switched Boston Med Flight from O- to O+ units
- Workflow and IS changes including **autofiling blood gas** and **yellow bags for NICU** were made to improve TAT
- You **in-sourced testing** (ANA and celiac) from other MGB sites to achieve cost savings

THANK YOU for these incredible accomplishments in 2020!

