**Supplemental Table 6.** Summary of the quantifiable benefits of mPCR + Nanopore

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| --- | --- | --- |
| **Estimation for 4 pathogens** | **qPCR** | **mPCR + Nanopore**(This study) |
| DNA template | 4-8 µl | 4 µl |
| PCR reagents | 4 sets | 1 set |
| Liquid transfers | 4 sets | 1 set |
| Time for mixing & amplification | 8 h | 2 h |
| Gel electrophoresis | no | optional |
| Detection limit | 1-100 copies/reaction | 1,000-10,000 copies/reaction |
| Sequence information | no | yes |
| Sequencing | If Sanger sequencing required, turnaround time is ~7 working days. | Nanopore sequencing, time to results is 3 h |
| Portability | Benchtop 96-well qPCR machine: 10-20 kg  | Yes (0.1 kg) |
| Cost of sequencing for 24 samples | 4 amplicons with bidirectional sequencing @ USD5/sample x 24 samples = 4 x 2 x 5 x 24 = USD 960Cost per sample = USD 960 / 24 = USD 40 | 600 USD/flow cell (1 flowcell can sequence up to 96 samples)Cost per sample = USD600/96 = USD 6.25 |
| System Acquisition Cost | USD 10,000-25,000  | USD 1,000  |