

Development and validation of a microarray for the confirmation and typing of norovirus RT-PCR products

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Noroviruses are implicated in many worldwide institutional, food and waterborne outbreaks each year. Genetic typing of isolates is valuable for monitoring outbreak spread as well as variation in circulating strains. Microarrays have the potential to provide rapid genotype information for norovirus samples. The NoroChip v3.0 provides an oligonucleotide hybridization platform to screen for over 600 potential interactions in each experiment. The NoroChip v3.0 was developed at Health Canada and validated in seven international partner laboratories. Each laboratory validated the NoroChip v3.0 using norovirus amplicons routinely characterized in their testing protocols. Fragments from the

capsid region (region C) and a 2.4. kb amplicon spanning polymerase and capsid sequences (region AD) were validated in six of the partner laboratories and provided correct genogroup typing information (GI or GII) when hybridized to the NoroChip v3.0. Results indicate that the current limiting factor for imp