



Summary

Most common viruses in GML catchment area

Rhinovirus

Human metapneumovirus

Influenza B



Figure 1. Respiratory virus panel (RVPCR) testing instrument. One specimen per instrument can be utilized at a time.

- GMC= 6 instruments
- GWV= 2 instruments
- GCMC= 1 instrument

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RESPView Pathogen Surveillance 2013-2014

The predominant virus is rhinovirus, Influenza B and HPMV.

- Influenza A H1N1 activity is dropping, while seasonal flu and influenza B continues.

10X Essentials: Respiratory Pathogen (RVPCR) Testing

As of April 30th, the full molecular panel will be standard of care throughout the Geisinger system. The clinical microbiology laboratory is preparing to discontinue the Influenza A/B and RSV abbreviated panel for the 2014 flu season, because influenza and RSV are moving back to zero baseline.



RVPCR Turnaround Time (TAT): Testing is performed daily, on all shifts at GMC, GWV and GCMC. This test is not performed STAT. The average laboratory receive time to result time (TAT) for 2014 YTD is 4.8 hours (Table 1). The official laboratory turnaround time for RVPCR is 2-8 hours, and may be longer depending on workload (Figure 1).

| Turnaround Time (TAT): Receive to Result | | |
|---|-----------|-----------|
| System-wide | 2013 | 2014 |
| n | 13,614 | 8,325 |
| median (hr) | 4.2 | 4.2 |
| 90th % | 8.7 | 9.2 |
| mean ± SEM | 5.6 ± 0.9 | 4.8 ± 0.6 |

Table 1. Receive to result (TAT) statistical analysis for 2013 and 2014 YTD. n= number of tests performed.

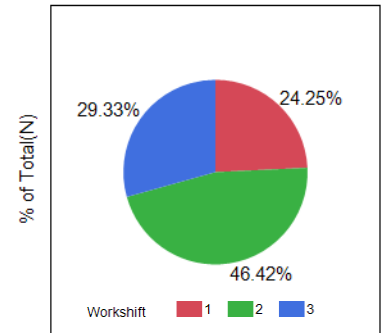
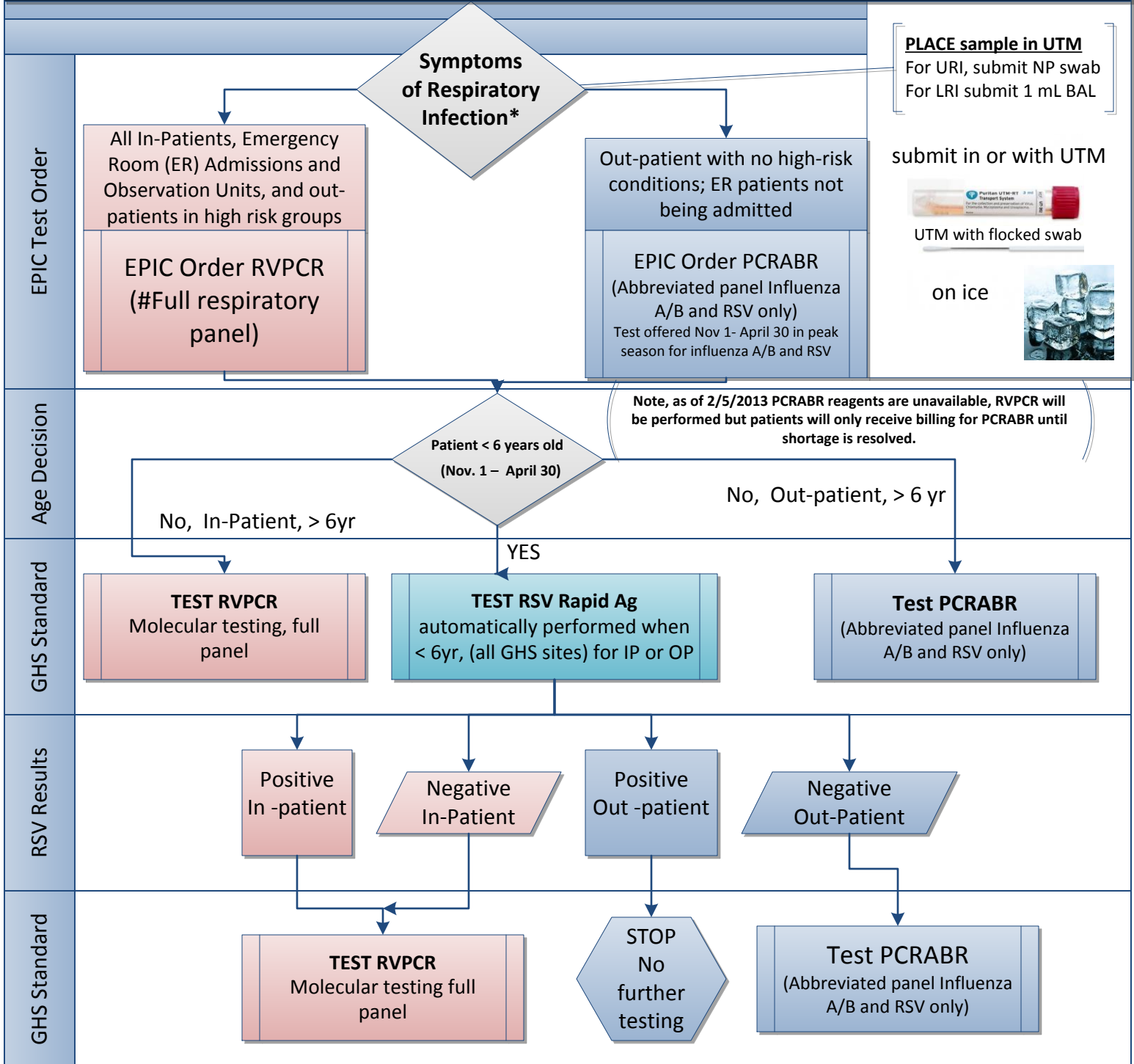


Figure 2. Percentage of tests performed per shift. Night shifts perform 76% of all tests.

For questions about respiratory pathogen testing, please contact Microbiology Technical Specialists, Lisa Scicchitano, B.S., MT(ASCP) at 570-214-4294, Francis Tomaszewski, B.S., MT(ASCP) at 570-271-6185, Dr. Donna Wolk, MHA, Ph.D, D(ABMM), System Director, Clinical Microbiology at 570-271-7467 or Dr. Raquel Martinez, Ph.D, D(ABMM), Director, Clinical Microbiology at 570-214-6587.

For newsletter questions, contact Christy Attinger at (570) 271-6338.

2014 Approved Respiratory Pathogen Testing Algorithm
Geisinger Medical Laboratories, Danville, PA



TEST = RVPCR

Molecular testing full panel: adenovirus; coronaviruses 229E, HKU1, NL63, and OC43; rhinovirus; human metapneumovirus; influenza A (subtypes H1, 2009 H1, and H3); influenza B; parainfluenza virus types 1-4; RSV; *Bordetella pertussis*; *Chlamydomphila pneumoniae*; and *Mycoplasma pneumonia* (at GMC, GWV, coming soon to GCMC; GBH and GSACH sent to GMC)

TEST = PCRABR

Molecular testing abbreviated panel: influenza A influenza B, RSV (performed at GMC for all sites)

Abbreviations

- URI = upper respiratory infection
- LRI = lower respiratory tract infection
- UTM = universal transport media w/ flocced swab
- NP = nasopharyngeal
- BAL= brochoalveolar lavage
- RSV = respiratory syncytial virus
- ED = Emergency Department

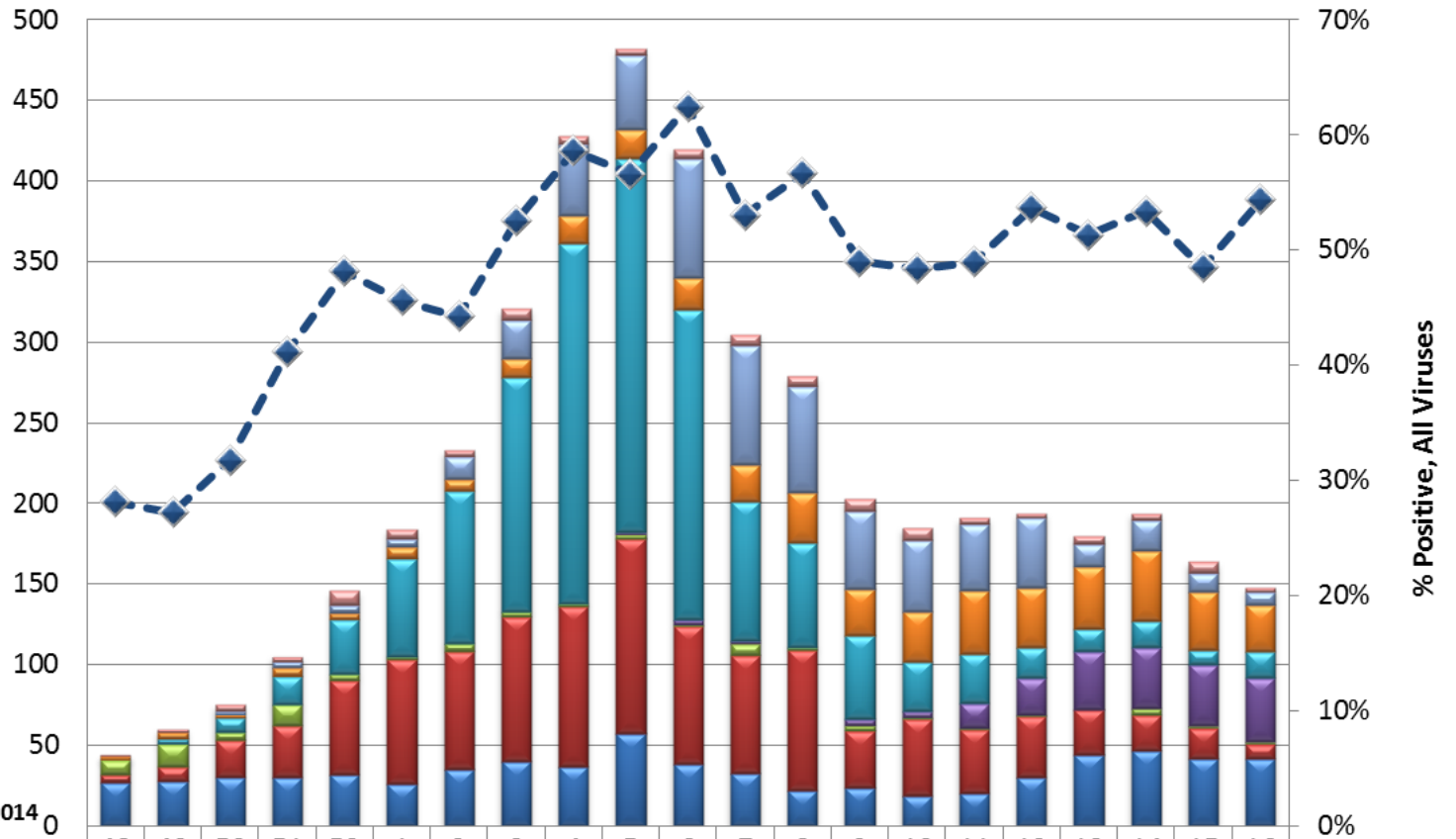
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*Note: Exceptions to algorithm can occur with laboratory waiver, e.g., patients in high risk groups
 *April 2- Oct 31: rare chance of detecting influenza/ RSV; for diagnostic purposes, the full molecular panel is standard.

Resp Flow diag Nov thru Apr.vsd
 dmwolk, rmmartinez: 12/30/2013, rev 2/5/14

**GML RespVIEW
2013-2014**

Respiratory Viruses



CDC Respiratory Week, 2013-2014

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| adenovirus | 1 | 2 | 4 | 3 | 9 | 6 | 4 | 7 | 5 | 4 | 6 | 7 | 6 | 8 | 8 | 4 | 3 | 5 | 4 | 7 | 3 |
| coronavirus | 0 | 0 | 2 | 4 | 5 | 5 | 14 | 24 | 44 | 46 | 74 | 74 | 66 | 48 | 44 | 41 | 43 | 14 | 19 | 12 | 8 |
| hum.metapneumovirus | 2 | 4 | 2 | 5 | 4 | 7 | 7 | 12 | 18 | 18 | 20 | 23 | 31 | 29 | 31 | 39 | 37 | 39 | 44 | 36 | 29 |
| influenza A | 0 | 3 | 9 | 18 | 34 | 61 | 95 | 145 | 223 | 232 | 192 | 86 | 65 | 52 | 31 | 31 | 19 | 14 | 16 | 9 | 16 |
| influenza B | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 0 | 4 | 4 | 15 | 23 | 36 | 38 | 38 | 40 |
| parainfluenza | 9 | 14 | 5 | 13 | 4 | 2 | 5 | 3 | 2 | 3 | 1 | 7 | 2 | 3 | 1 | 1 | 1 | 0 | 4 | 1 | 1 |
| respiratory syncytial virus | 5 | 9 | 23 | 32 | 58 | 77 | 73 | 90 | 99 | 121 | 86 | 73 | 87 | 35 | 47 | 40 | 38 | 28 | 22 | 19 | 9 |
| rhinovirus | 27 | 28 | 30 | 30 | 32 | 26 | 35 | 40 | 37 | 57 | 38 | 33 | 22 | 24 | 19 | 20 | 30 | 44 | 47 | 42 | 42 |
| % Positive Rollup (right axis) | 28% | 27% | 32% | 41% | 48% | 46% | 44% | 53% | 59% | 57% | 62% | 53% | 57% | 49% | 48% | 49% | 54% | 51% | 53% | 48% | 54% |

**Weekly GML RespVIEW:Respiratory Virus Distribution
CDC Week 16, 2013-2014**

