

10X Essentials (formerly Bugs-R-Us)

Infectious Disease Diagnostics in the Geisinger Health System

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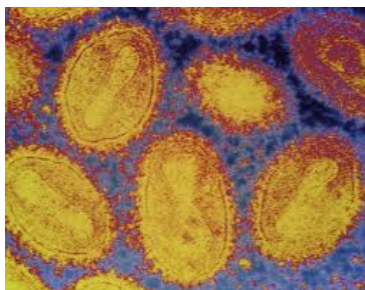
Introductions

I am pleased to invite you to read the first edition of 10X Essentials (formerly Bugs-R-Us). My name is Donna Wolk, and I will begin my service as Medical Director and Consultant for the Department of Clinical Microbiology starting January 7, 2013. I am anxious to begin our work, strategic planning for the Infectious Disease Diagnostics service for GHS. The medical laboratory scientists and leadership team throughout GHS are among the best in the nation, and I feel fortunate for the opportunity to work with them and with you. Our initial effort will be focused on the rapid and cost-effective detection of pathogens to expand the nationally recognized, evidence-based practices at GHS. Our goal is to maintain a strong partnership with the GHS healthcare teams to further improve patient care.

I am arriving at GHS by way of a post-doctoral Microbiology fellowship at Mayo Clinic in Rochester, MN, and my service as Division Chief of Clinical and Molecular Microbiology at the University of Arizona in Tucson, AZ. While the geographical transition will be a bit of a shock to my system, I grew up in northeast Pennsylvania, and I look forward to returning and to serving the healthcare needs of our region.

What's in a name?

10X Essentials is so named to describe the primary newsletter intent...to provide those we serve with the big picture of what is new and relevant in clinical microbiology throughout the GHS service area. Much like the 10X objective of a microscope provides the overall essence of the Gram stain prior to drilling down to the individual elements, 10X Essentials will attempt to provide you with the most relevant information in the least amount of your time. I will attempt to keep our information focused and pertinent to your clinical practice. I welcome your suggestions for the newsletter.



Bordetella pertussis

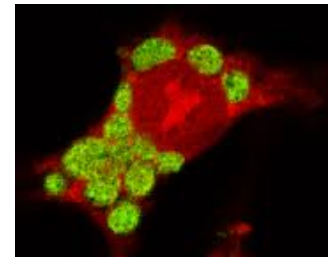
New Respiratory Pathogen Targets as of November 1, 2012

On November 1, 2012, the Danville Microbiology Laboratory added the following genetic targets to the multiplex respiratory pathogen testing (Respiratory PCR-RVPCR): *Bordetella pertussis*, *Mycoplasma pneumoniae*, *Chlamydomphila pneumoniae* and coronavirus OC43 and 229E. The RVPCR assay will continue to test for respiratory syncytial virus, Influenza A (subtypes H1, H1 2009, and H3), Influenza B, human metapneumovirus, adenovirus, rhinovirus, parainfluenza types 1-4, and coronaviruses HKU1 and NL63.

New Respiratory Pathogen Targets as of November 1, 2012, cont'd

Availability: RVPCR will provide comprehensive testing for respiratory viruses and bacteria – 20 pathogens in approximately 2-8 hours (turnaround time once received in the laboratory). The RVPCR assay will be performed 24/7/365 at GMC and will also be implemented at GWV in the future.

Chlamydia pneumoniae



Specimens: Nasopharyngeal (NP) swabs (the only FDA-approved specimen source), BAL, bronchial washings, tracheal aspirates, NP washes/aspirates, and throat swabs are acceptable specimens in UTM if stored for ≤ 24 hours at room temperature and 3 days at 2 – 8° C. **Sputum specimens are NOT acceptable.**

Performance: Percent positive agreement for the new targets compared to culture and other molecular testing ranged from 96.8% to 100%.

Limitations: For *B. pertussis*: 1) This assay **only detects *B. pertussis*** (it does not detect *B. parapertussis*). If testing for both pathogens is necessary, **order referred test code BPPDNA**. 2) Some of the *B. pertussis* acellular vaccines contain PCR-detectable DNA. **Do NOT collect specimens in workspaces that are exposed to *B. pertussis* vaccine material.**

Discontinued Testing: As of November 1, 2012, the following tests will no longer be available: 1) *Bordetella pertussis* culture (BORC), 2) *Mycoplasma pneumoniae* culture (MYPNEU), and 3) *Chlamydia pneumoniae* PCR (CHLPCR).

Questions: If you have any questions about this method change, please contact Microbiology Technical Specialist, Lisa Scicchitano, B.S., MT(ASCP) at 570-214-4294 or Interim Microbiology Laboratory Director, Dr. Harold Harrison at 570-271-7443.



Weekly Summary of Communicable Disease Activity: 2012-2013 Respiratory Season Pathogen Surveillance (RESPView)

The 2013 respiratory season is beginning, and to that end I will continue the Bugs-R-Us tradition and report viral surveillance each week. I am discontinuing the old reporting format of “viruses/year” in favor of the Centers for Disease Control format, “viruses/week.” As you can see on the on the following page, the CDC format provides a more real-time view of the viruses that are impacting your practice on a weekly basis. **Currently, in CDC weeks 40-44, rhinoviruses predominate, followed by parainfluenza viruses and RSV, which is on the rise.** We will provide a black-and-white version of the graph to anyone who needs it for FAXING and for B&W printers. Note that the pathogen categories descend from top to bottom, and the corresponding raw data is listed in the table below the graph.

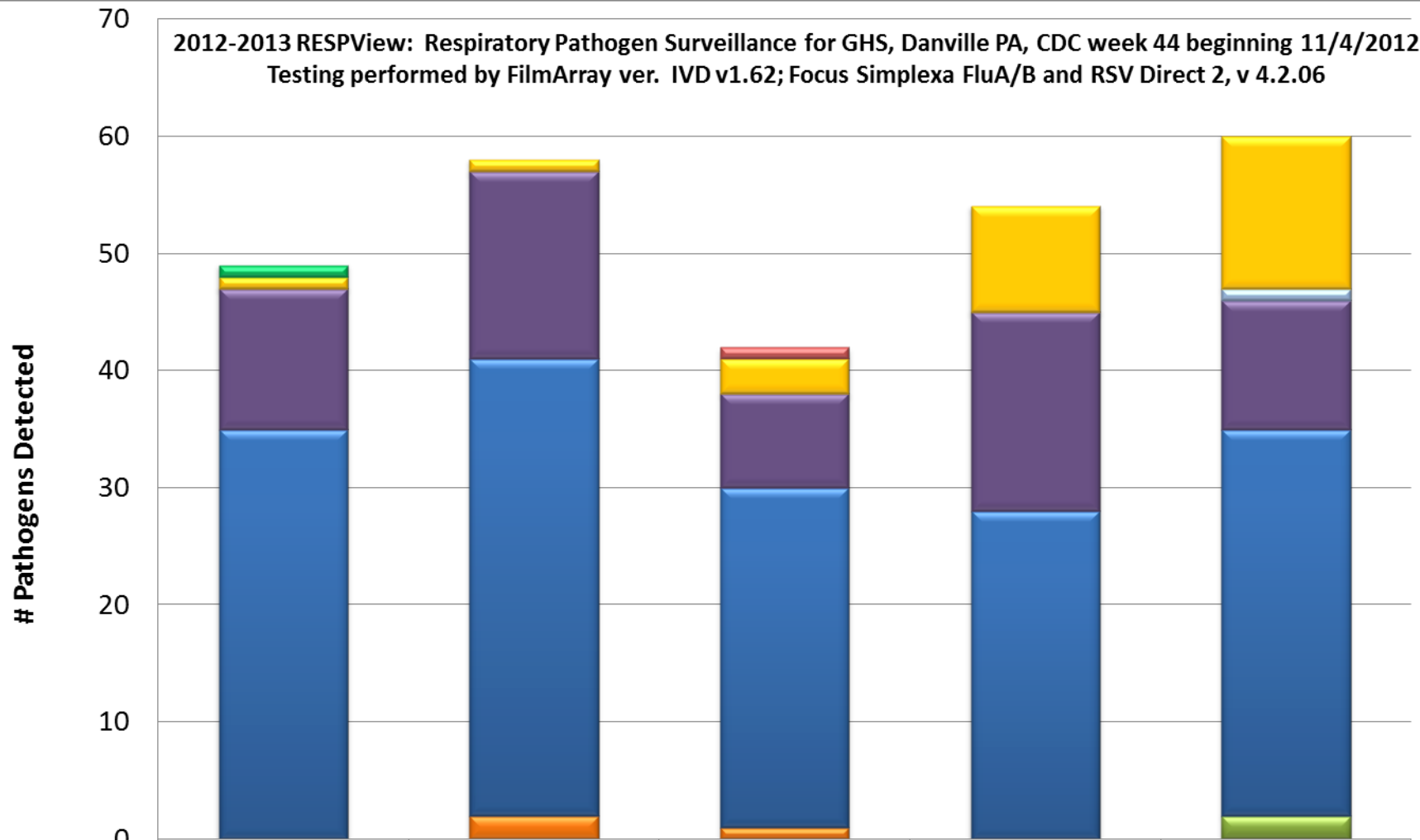
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“Make it the best.” - A. Geisinger

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2012-2013 RESPView: Respiratory Pathogen Surveillance for GHS, Danville PA, CDC week 44 beginning 11/4/2012
 Testing performed by FilmArray ver. IVD v1.62; Focus Simplexa FluA/B and RSV Direct 2, v 4.2.06



	CDC Week 40	41	42	43	44 (11/4/12)
influenza A	0	0	1	0	0
influenza B	1	0	0	0	0
respiratory syncytial virus	1	1	3	9	13
coxsackie/enterovirus	0	0	0	0	0
adenovirus	0	0	0	0	1
parainfluenza	12	16	8	17	11
rhinovirus	35	39	29	28	33
human metapneumovirus	0	2	1	0	0
coronavirus	0	0	0	0	2