Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

viruses were seen in 33.3% and 43.9% of WUV and KIV samples respectively. The median age range for WUV was 0–2yrs and KIV was 2–4yrs.
Conclusions: This study suggests that WUV is a more likely pathogen in immunocompetent children between 0–2yrs, whereas KIV is prevalent in the immunosuppressed population, mainly children between 2–4yrs, as a co-infection with other respiratory viruses. There are a paucity of data regarding the exact clinical role of these polyomaviruses as human pathogens thus requiring prospective longitudinal and seroprevalence studies.

PIV-21
Respiratory viral infections in adult patients with hematologic malignancies

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Background: Respiratory viruses including influenza A and B viruses, parainfluenza viruses, and respiratory syncytial virus (RSV) have been recognized as causes of severe pneumonia in patients with hematologic malignancies. Adenoviruses (Ad) cause both isolated respiratory infections and infections transmitted via the faecal–oral or conjunctival routes. Increased rates of Ad-related pneumonia have been reported with malignancies of haematopoietic origin.
Objectives: To evaluate the occurrence of respiratory virus infections in the inpatient settings of the hematology department, cases that developed episodes of lower respiratory tract infections (LRTI) were evaluated.
Study design: Immunoflouresence search for IgM antibodies of influenza A and B, parainfluenza serotypes 1, 2, 3, RSV, and Ad (Pneumoslide IgM IFA, Vircell SL, Spain) were performed on serum samples of 91 patients with hematologic malignancies who had LRTIs.
Results: We identified at least one respiratory virus in 24.2% (22 in 91) of patients. In 13 (14.3%) cases multiple viral agents were identified. Adenovirus was the most common virus found (14.3%), followed by parainfluenza virus (9.9%). Influenza A virus and RSV were found equally in 6.6% of patients. Influenza B virus, which is usually responsible for respiratory infections in the community, was the least frequently identified respiratory virus in patients with hematologic malignancies (3.3%).
Conclusion: This study showed that respiratory viruses, especially Ad, are common either as a single or multiple cause of LRTIs in patients receiving chemotherapy. We conclude that diagnostic tests for respiratory viruses should be incorporated in the routine diagnostic study of patients with hematologic malignancies.

PIV-22
Specimen quality control for respiratory pathogen detection using molecular tests: are specimens collected by community-based healthcare staff reliable?

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The initial phases of the current Influenza H1N1v pandemic required a massive laboratory diagnostic testing effort, primarily using TaqMan® RT-qPCR assays. The 'containment' strategy adopted in the UK required specimen collection and patient management in the homes of suspected cases, in order to minimize the potential for spread within and via healthcare institutions. Large numbers of respiratory specimens were therefore collected by doctors and other primary healthcare workers who had little previous experience of taking nasopharyngeal swabs for molecular testing. To assess whether this adversely affected specimen quality (possibly leading to false-negative test results) we used a series of molecular assays to detect 'housekeeper' genes and transcripts in respiratory specimens. The assays were calibrated, and used to quantify the recovery of epithelial cells by dry nasopharyngeal swabs, as a measure of specimen quality. Using this metric, we compared the quality of specimens collected from (i) suspected H1N1v cases in the community, and (ii) specimens collected during annual public health 'flu spotter' surveillance in the same region, by a cohort of trained and experienced general practitioners. The results of a statistical analysis of this dataset will be presented.

PIV-23
Clinical usefulness of HMPV quantitative PCR in paediatric respiratory samples

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Introduction: Human metapneumovirus (hMPV) is an RNA virus causing bronchiolitis in young children. Currently, respiratory viruses are detected through immunofluorescence (IF). The expansion of molecular biology as the gold standard compels us to develop a real-time PCR that quantifies hMPV (qPCR).
Material and Methods: During the last winter-season, respiratory samples were collected from children (<5 years) displaying respiratory symptoms. An IF, hRSV and hMPV qPCR were performed. We examined the clinical records of all hMPV positive patients.
Results: We analysed 183 samples. The IF results were 11.3%, 3.9% and 1.5% respectively for hRSV, influenza A and adenovirus. No positive samples for influenza B and parainfluenza 1–3 and no co-infections were observed.
qPCR revealed 21 positive samples (11.5%) for hRSV and 10 for hMPV (5.5%) including 1 hRSV-hMPV co-infection.
The mean hMPV qPCR value was 1329copies/PCR. All positive hMPV PCR patients presented a bronchiolitis and 6 were hospitalized.
Among those 6, 5 had a positive pulmonary X-ray of which 4 had a viral load >1000copies/PCR. Two hospitalized patients had a low viral load, one had co-morbidities and the other was 15 days old.
The non-hospitalized patients didn't undergo an X-ray and had a low viral load <1000copies/PCR.
Conclusions: We developed a home-made qPCR for hMPV in respiratory samples. We detected 5.5% of children with respiratory symptoms infected with hMPV. A high viral load seems associated to a more severe bronchiolitis. Larger studies are needed to confirm this observation.

PIV-24
Multiple agents commonly involved in respiratory tract infections in children

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Material and Methods: 873 nasopharyngeal aspirates were collected from children admitted to hospital with respiratory tract infections from June 6, 2007 to February 28, 2009. 142 samples were collected from a control group consisting of children admitted to elective surgery.
All specimens were tested by real-time PCR for adenovirus, bocavirus, coronavirus (OC43, 229E and NL63), enterovirus, metapneumovirus, influenza A and B virus, parainfluenza virus type 1–3, RS-virus, rhinovirus, *Bordetella pertussis*, *Chlamydophila pneumoniae* and *Mycoplasma pneumoniae*. All results were recorded semiquantitatively. The same samples collected in ordinary virus transport medium without antibiotics were also cultured for virus and bacteria.
Results: 67% of the specimens tested positive by PCR for 1 to 5 agents in the patient group, while 70.4% tested positive for 1 to 4 agents in the control group. Rhinovirus (22.7%), RS-virus (18.6%) and bocavirus (10.3%) were most frequently found in the patient group, while rhinovirus (33.1%), adenovirus (16.9%) and bocavirus (16.2%) dominated in the control group. However, the mean age was higher in the control group (45 months) than in the patient group (33 months). Potential pathogenic bacteria were cultured from 90% of patient specimens and from 88.9% of the controls.
In patients RS-virus, influenza A virus and metapneumovirus were mainly detected in high concentrations and were seldom mixed with other viruses. Enterovirus, adenovirus, bocavirus and rhinovirus often occurred in mixed infections with low virus levels in both groups.
Conclusion: The nature and quantity of the agents detected from airway samples may aid the interpretation of the results.