## **Segirus Media Monitoring**

27th Feb 2019

## **Segirus mentions**

#### Millions Come Down With Flu

From the start of the flu season in October 2018 to Feb. 16, an estimated 17.7 million to 20.4 million people have been stricken with the flu in the United States, and many are coming down with the more severe influenza A H3N2 strain. Fortunately, the influenza vaccines are a good match for the strains circulating this season, and all three neuraminidase inhibitor antiviral drugs oseltamivir (Tamiflu, Genentech), peramivir (Rapivab, Seqirus), and zanamivir (Relenza, GlaxoSmithKline) are effective against this season's flu, as is the cap-dependent endonuclease inhibitor baloxavir marboxil (Xofluza, Genentech)

https://www.pharmacypracticenews.com/Online-First/Article/02-19/Millions-Come-Down-With-Flu/54208

## **Industry News**

## Pharma industry steels itself for no-deal Brexit

In the UK, drugmakers warn they cannot rule out shortages and say investment could also be hit in case of a no-deal Brexit. Despite all the industry's planning, many potential problems are beyond its control — such as congestion at ports and the regulatory regime on both sides of the English Channel. Both could affect whether there are sufficient supplies of vital drugs. Moreover, both the UK government and business have recognised that investment in the sector could be dented, because Brexit implies extra costs for pharmaceutical companies, which in turn could affect patients' access to medicines.

https://www.ft.com/content/bcb554da-35cf-11e9-bd3a-8b2a211d90d5

#### Sinovac swallows poison pill to fend off rebel investors' coup attempt

Half a year after Sinovac aborted its attempt to go private amid a wild series of events involving rebel investors, the Chinese vaccine producer has implemented a rare "poison pill" defense against a shareholder coup. The company is issuing new shares to dilute investor holdings so certain shareholders can't take control, Sinovac said, tagging 1Globe Capital, Chiangjia Li, OrbiMed Advisors and other investors as collaborators attempting a takeover. The company markets a vaccine against enterovirus 71, plus others against hepatitis A and B, seasonal flu, H5N1 pandemic flu, H1N1 swine flu and mumps.

https://www.fiercepharma.com/vaccines/sinovac-swallows-a-poison-pill-to-defend-against-rebel-investors

## Tracking individual flu viruses shows the antiviral drug zanamivir in action

Watching single virus particles moving and binding to cell membranes could improve understanding of how flu drugs work. A new combination of analytical techniques now offers a way to count how many interactions a single virus's surface proteins have with cell surface sugars—and reveals an unexpected effect of zanamivir, a common flu medication. The results offer a route to better understand viral infectivity and could aid in designing new drug molecules

https://cen.acs.org/biological-chemistry/infectious-disease/Tracking-individual-flu-viruses-reveals/97/web/2019/02

#### **Pandemic Influenza News**

#### Bat flu can spread to humans: should we be worried?

Scientists first discovered bat flu viruses in 2012. Although these were influenza A viruses, there was something strange about them – the way they infected their host's cells seemed to be different from

other influenza A viruses. Given the justified fear over zoonotic diseases, the race was on to discover how these viruses operated. Scientists at the University of Zurich have just won that race. They recently reported in Nature that they have identified the gateway ("receptor") that lets the bat flu viruses enter their host's cells and cause infection. Unfortunately, this receptor also exists on the cells of certain livestock and, more worryingly, humans.

http://theconversation.com/bat-flu-can-spread-to-humans-should-we-be-worried-112325

Additional sources: (Newsweek)

## Human error in high-biocontainment labs: a likely pandemic threat

Incidents causing potential exposures to pathogens occur frequently in the high security laboratories often known by their acronyms, BSL3 (Biosafety Level 3) and BSL4. If the agent involved were a potential pandemic pathogen, such a community release could lead to a worldwide pandemic with many fatalities. Of greatest concern is a release of a lab-created, mammalian-airborne-transmissible, highly pathogenic avian influenza virus, such as the airborne-transmissible H5N1 viruses created in the laboratories of Ron Fouchier in the Netherlands and Yoshihiro Kawaoka In Madison Wisconsin. In an analysis circulated at the 2017 meeting for the Biological Weapons Convention, a conservative estimate shows that the probability is about 20 percent for a release of a mammalian-airborne-transmissible, highly pathogenic avian influenza virus into the community from at least one of 10 labs over a 10-year period of developing and researching this type of pathogen. This percentage was calculated from FSAP data for the years 2004 through 2010.

https://thebulletin.org/2019/02/human-error-in-high-biocontainment-labs-a-likely-pandemic-threat/

Disease X: Deadly illness could wipe out millions like Spanish flu - what you need to know Disease X has been identified as the next global pandemic by researchers - but it doesn't exist yet. Scientists are currently working to predict when the virus will emerge, with the World Health Organisation warning last year conditions are perfect. Fears are circulating the illness evolves from a mutated form of influenza and healthy people could be most at risk.

https://www.express.co.uk/life-style/health/1092514/disease-x-virus-spanish-flu-what-is-it

## **Academic studies**

## HF tied to worse outcomes in patients hospitalized with influenza

Among adults hospitalized with influenza, those with HF had increased risk for in-hospital mortality and complications, according to findings published in The American Journal of Cardiology. "Our results highlight a need for early and aggressive treatment of patients with influenza and HF to try to improve outcomes in these patients," Panhwar and colleagues wrote. "While reducing HF admissions remains challenging, influenza admissions can be prevented through vaccination, which has been shown to be protective in HF patients."

 $\frac{https://www.healio.com/cardiology/hf-transplantation/news/online/\%7B330b6c5c-8bca-4050-8ee1-8edf1d5b1f95\%7D/hf-tied-to-worse-outcomes-in-patients-hospitalized-with-influenza$ 

# Researcher Gets \$3.86 Million Grant To Develop Universal Flu Vaccine With Microneedle Patch

Dr. Baozhong Wang, associate professor in Georgia State University's Institute for Biomedical Sciences, has received a five-year, \$3.86 million federal grant to develop a universal flu vaccine using a microneedle patch that will protect against any strain of the influenza virus. The funding from the National Institutes of Health's National Institute of Allergy and Infectious Diseases will be used to create a painless vaccine with self-administration potential that induces strong cross-immune protection against influenza A and B viruses to harness both influenza epidemics and pandemics.

 $\underline{https://news.gsu.edu/2019/02/26/researcher-gets-3-86-million-grant-to-develop-universal-flu-vaccine-with-microneedle-patch/$ 

#### **Pediatric influenza news**

## North Carolina teen dies of severe flu-related complication, family says

A North Carolina community is mourning the loss of an eighth-grade student who died following severe complications of the flu virus. According to a fundraising page set up on her family's behalf, Skyler McCardle had been admitted to Duke University Medical Center last week and was diagnosed with myocarditis, which is most commonly caused by viral infections in children.

https://www.foxnews.com/health/north-carolina-teen-dies-of-severe-flu-related-complication-family-says

## Peer-focused parents group aims to raise vaccine rates

Concerned about the high rate of vaccine exemptions, Kim Nelson started her own group, South Carolina Parents for Vaccines. She began posting scientific articles online, and started responding to private messages from concerned parents with specific questions. She also found positive reinforcement was important. Nelson is now trying to get local hospitals to integrate that vaccine talk into their birthing classes. She's studying for a master's degree in public health at the University of South Carolina, and also works with the Bradshaw Institute for Community Child Health and Advocacy. She's even considering a run for public office.

https://abcnews.go.com/Health/moms-parent-parent-strategy-vaccine-education/story?id=61302436

## Health Tip: Protecting Children from the Flu

Thousands of children under the age of 5 have been hospitalized for the flu in the last decade, the U.S. Centers for Disease Control and Prevention says. The CDC suggests following a number of precautions to protect younger children

 $\underline{https://www.usnews.com/news/health-news/articles/2019-02-26/health-tip-protecting-children-from-the-fluent for the following of the following production of the follow$ 

## Five-year-old Brysen got the flu. Weeks later, his legs hurt. Days later, he was paralyzed.

While this year has been a comparatively mild flu season, Indiana has seen 41 flu-related deaths, most of them in adults over age 50. Last week, however, saw the state's first pediatric flu-related death, according to the Indiana State Department of Health. Flu vaccine and flu infections also may increase a person's risk of developing Guillain-Barré Syndrome (developed by local five-year-old Brysen Mills after he was diagnosed with the flu)

https://www.msn.com/en-us/health/medical/five-year-old-brysen-got-the-flu-weeks-later-his-legs-hurt-days-later-he-was-paralyzed/ar-BBU5QWz

## Flu Cases 'Widespread' In NJ As 3rd Child Dies: Who's At Risk

New Jersey's flu scare is "widespread" as the number of test cases have nearly quadrupled over the past two months. And now a third child has died of the disease, and several schools have had to close because of the high number of cases. The CDC called New Jersey's flu activity "widespread" as the state has seen its "rapid-test" flu cases increase from 323 during the week that ended on Dec. 22 to 1,269 during the week that ended on Feb. 16, according to state Department of Health statistics. The state also has had highest numbers of emergency department visits in three years. https://patch.com/new-jersey/pointpleasant/flu-cases-widespread-nj-3rd-child-dies-whos-risk

#### Girl dies of flu-related complications amid peak season

Seven influenza-related deaths were reported in Taiwan last week, including a seven-year-old girl who died of severe complications two weeks after developing flu symptoms, the Center for Disease Control and Prevention (CDC) said Tuesday. The girl was diagnosed as infected with the A-type flu virus H3N2, said CDC quarantine physician Lin Yung-ching. Lin said the young girl received a flu vaccine injection in late December, before traveling with a tour group to Hokkaido, Japan in mid-January.

http://focustaiwan.tw/news/asoc/201902260023.aspx

#### Over 65's influenza news

## **High-Dose Flu Shot Better at Protecting Seniors**

High-dose influenza vaccine appears to be more effective than the standard flu shot in preventing hospitalizations among older patients, according to a new study. Researchers wanted to compare the effectiveness of high-dose influenza vaccine (Fluzone High-Dose, Sanofi Pasteur) with the standard-dose flu shot. Patients were vaccinated at 1,347 VHA facilities, both medical centers and community outpatient clinics. The researchers looked at this group because seniors have a lower antibody response to standard-dose influenza vaccines, but are an age group that is at higher risk for hospitalization and death from the flu.

https://www.pharmacypracticenews.com/Online-First/Article/02-19/High-Dose-Flu-Shot-Better-at-Protecting-Seniors/5 4205

Additional sources: (Infectious Disease Special Edition)

## 5 Vaccines You Need As You Age

Vaccinations are as important for adults as it is for the kids, yet many are not properly vaccinated. Included in the five adult vaccines that people should consider having now is the flu vaccine. The CDC recommends that those aged 65 years and up should have a higher dose to obtain additional protection.

https://www.msn.com/en-us/health/medical/5-vaccines-you-need-as-you-age/ar-BBU58q6

## **General Influenza News**

## Forget the anecdotes, the vaccine science is clear

Dr Mary McMillan is a lecturer at the School of Science and Technology, University of New England. She writes: "Each year, somewhere around 1,000 Australians die from the flu, despite the fact that we have a vaccine to prevent it. Many people are resistant to being vaccinated – possibly because of the myths and misconceptions about the vaccine and how it works. One myth is that you can catch the flu from the vaccine itself. This is absolutely not true. Vaccines are made using dead virus – virus that is incapable of infecting you and making you sick." "I'd urge everyone to look at the science – which tells us vaccines are safe, they're effective, and by getting vaccinated we can help protect the vulnerable people in our communities."

https://www.moreechampion.com.au/story/5925514/forget-the-anecdotes-vaxx-science-is-clear/

#### 5 things to know about this year's flu season

In the U.S., as influenza season trudges on, public health officials report fewer cases than last year's severe and deadly season. A CDC report released recently shows a more effective vaccine compared with the previous two seasons and called this season a low-severity year so far for influenza — classified as having a fever, cough and body aches. But local doctors and public health officials also point out flu season is far from over, with the illness typically lasting into April. They say those who haven't received the flu shot this season could still benefit from one.

https://triblive.com/news/health-now/5-things-to-know-about-this-years-flu-season/

#### When To Get Your Flu Shot

In Australia, with autumn starting on Friday how soon is too soon to get a flu shot? According to NPR, the science is inconclusive as to how long a flu shot's protection lasts. Some studies show that if the flu strain hasn't mutated, last year's shot still protects you; other research shows that your flu shot may not last even eight months, especially if you're over 65. An early flu shot is definitely better than no flu shot at all, but your best bet is to wait until about mid-April. That way, even if your immunity only lasts six months, it will carry you through the peak of flu season.

https://www.lifehacker.com.au/2019/02/when-to-get-your-flu-shot/

## This flu season is less brutal, but people should still be vaccinated

In Pennsylvania, so far this flu season, one Allegheny County resident has died from a flu-related

illness. Last season, there were 31 fatalities. Dr. Graham Snyder, head of infection prevention at UPMC, said last year's high number of fatalities was due in large part to a strain called H3N2 that was widely circulating. Snyder added that even though H3N2 infections are less common this season, people should still get vaccinated since the virus continues to circulate and flu season can last well into the spring.

http://www.witf.org/news/2019/02/this-flu-season-is-less-brutal-but-people-should-still-be-vaccinated.php

## Why the Flu Shot Is Good for Your Heart

Since the beginning of flu season in October 2018, it's estimated that there have been more than 10 million flu illnesses, 5 million flu medical visits and 100,000 flu hospitalizations – and flu season has just begun. It's recommended that almost all people over 6 months old get vaccinated against the flu every year. However, certain people may have an extra reason to make sure they receive their vaccine. Recent studies have shown that the flu vaccine can help protect against heart attack, plus reduce the risk of being hospitalized or dying from the flu in patients with heart failure.

https://health.usnews.com/health-care/for-better/articles/2019-02-26/why-the-flu-shot-is-good-for-your-heart

## **Common Questions About Corporate Flu Shots**

Corporate flu shots are instigated by Australian businesses who are providing themselves with insurance against serious strains of flu. When one staff member falls foul of one of these seasonal outbreaks, the illness can quickly spread between departments and the usual course of business can be threatened. To ward this problem off before it arises, there are organisations across major cities, suburban areas and rural regions who are embracing a proactive approach to the health of their employees.

https://www.transformingthenation.com.au/common-questions-about-corporate-flu-shots/

## **Burden of disease**

## Clark County has 2 flu deaths as Ohio cases rise

Two people have died from the flu in Clark County in the last month as flu-related hospitalizations have increased across Ohio. In Clark County, the local health district has investigated 69 cases of influenza this flu season, according to the combined health district's epidemiologist Anna Jean Petroff. Both victims who died from the flu were elderly, she said.

https://www.springfieldnewssun.com/lifestyles/health/clark-county-has-flu-deaths-ohio-cases-rise/uOPzAJDyaaZPIp3TLBoRAJ/

#### 75 per cent of this year's H1N1 cases recorded in Feb

Ahmedabad, India, reported 825 H1N1 cases this year, of which 612, or 75%, were registered in February. There were also three H1N1 deaths reported in the city this week. So far this year, the city has reported 21 deaths from swine flu, of which 19 occurred in February.

https://timesofindia.indiatimes.com/city/ahmedabad/75-of-this-years-h1n1-cases-recorded-in-february/articleshow/68 160313.cms

#### Swine flu countinues to haunt, two more deaths in Madhya Pradesh

With two more deaths due to swine flu in Bhopal, the central surveillance unit of integrated disease surveillance programme (IDSP) has reported 23% death rate due to H1NI virus in Madhya Pradesh, so far in 2019. Delay in diagnosis has appeared to be one of the major deterrents in curbing the contagious disease. However, when compared to neighbouring states like Rajasthan, Gujarat and Maharashtra, less than one-tenth of H1N1 cases have been reported in MP.

 $\frac{https://timesofindia.indiatimes.com/city/bhopal/swine-flu-countinues-to-haunt-two-more-deaths-in-mp/articleshow/68}{159875.cms}$ 

## Severe Flu Strains Spreading, 15 Dead in GA

Health officials have reported the flu continues to spread across the U.S. during this flu season.

Fifteen deaths from the flu have been confirmed for the state of Georgia. At the beginning to the season, the more prominent strain was influenza A H1N1, but now, there is a more severe strain, influenza A H3N2. This new strain accounts for almost half of all new cases according to the CDC. http://valdostatoday.com/news-2/region/2019/02/severe-flu-strains-spreading-15-dead-in-ga/

## Flu Activity Increases In New York: CDC

At least 41 children have died from flu-related causes in the U.S., with seven child deaths reported in the week ending Feb.16, according to the latest statistics from the CDC. Flu activity continues to increase and, with the exception of West Virginia, the disease is now widespread in every state, including New York. The H1N1 virus (swine flu) continues to be the predominant strain in most of the country, while the H3N2 virus is most prevalent in the Southeast. FDA Director Scott Gottlieb has said the H1N1 strain tends to peak late in the season but that the vaccine to protect against it has an effectiveness of 60 percent or greater.

https://www.msn.com/en-us/health/medical/flu-activity-increases-in-new-york-cdc/ar-BBU4JXu

#### **CDC Warns of Second Wave Of Flu**

Flu is a tough bug says, Lynnette Brammer head of the U.S. CDC's domestic influenza surveillance team. She says, "You're constantly chasing a moving target." She says we've had a wave of H1 activity and now we are seeing H3. She says, "there's probably weeks and weeks of flu season to come." Vaccines are still the best way to prevent both strains of the flu. This year's vaccine is 62 percent effective against H1N1 and 44 percent effective against H3N2, according to the CDC. While this year has been relatively mild we still have had about 22 thousand flu-related deaths.

https://www.wsbradio.com/news/local/cdc-warns-second-wave-flu/Bn0e3N0DELoai6DwATRW3H/

## Delaware flu deaths rise to 15; more than 3,200 flu cases confirmed, state says

In Delaware, a 68 year-old Sussex County woman and an 85-year-old New Castle County man died of the flu last week, increasing the total number of influenza deaths to 15 people this season, health officials said. Like the other Delawareans who died, these residents had underlying health conditions and were infected with the influenza A strain, health officials said.

 $\frac{https://www.delawareonline.com/story/news/health/2019/02/26/state-15-delawareans-have-died-flu-more-than-3-200-flu-cases-confirmed/2989026002/$ 

## One person dies of swine flu in north

In Cyprus, one person has died of swine flu in the north, while five more cases are being treated, it emerged on Tuesday. According to Turkish Cypriot health minister Filiz Besim tests were carried out on 80 people showing flu symptoms, six of whom tested positive for swine flu. Besim noted that vaccine stocks are plenty, adding that measures have been taken to tackle the increase in swine flu incidents,

https://cyprus-mail.com/2019/02/26/one-person-dies-of-swine-flu-in-north/

#### Flu Surveillance in Animals

## Lack of vaccination programmes a headache for poultry producers

In Namibia, serious concern was raised about the apparent lack of vaccination programmes followed by poultry producers during the first management meeting of the Poultry Producers Association (PPA) in Windhoek last week. A need was identified for the Directorate of Veterinary Services (DVS) to monitor and assure that poultry producers implement vaccination programmes.

https://neweralive.na/posts/lack-of-vaccination-programmes-a-headache-for-poultry-producers