WEEKLY EPIDEMIOLOGY BULLETIN NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Pneumonia

Pneumonia is a form of acute respiratory infection that affects the lungs. The lungs are made up of small sacs called alveoli, which fill with air when a healthy person breathes. When an individual has pneumonia, the alveoli are filled with pus and fluid, which makes breathing painful and limits oxygen intake.

PNEUMONIA



Pneumonia is the single largest infectious cause of death in children worldwide. Pneumonia killed 808 694 children under the age of 5 in 2017, accounting for 15% of all deaths of children under five years old. Pneumonia affects children and families everywhere, but is

most prevalent in South Asia and sub-Saharan Africa. Children can be protected from pneumonia, it can be prevented with simple interventions, and treated with low-cost, low-tech medication and care.

Key facts

- Pneumonia accounts for 15% of all deaths of children under 5 years old. killing 808 694 children in 2017.
- Pneumonia can be caused by viruses, bacteria, or fungi.
- Pneumonia can be prevented by immunization, adequate nutrition, and by addressing environmental factors.
- Pneumonia caused by bacteria can be treated with antibiotics, but only one • third of children with pneumonia receive the antibiotics they need ..

Transmission

Pneumonia can be spread in a number of ways. The viruses and bacteria that are commonly found in a child's nose or throat, can infect the lungs if they are inhaled. They may also spread via air-borne droplets from a cough or sneeze. In addition, pneumonia may spread through blood, especially during and shortly after birth. More research needs to be done on the different pathogens causing pneumonia and the ways they are transmitted, as this is of critical importance for treatment and prevention.

Risk factors

While most healthy children can fight the infection with their natural defences, children whose immune systems are compromised are at higher risk of developing pneumonia. A child's immune system may be weakened by malnutrition or undernourishment, especially in infants who are not exclusively breastfed.

Pre-existing illnesses, such as symptomatic HIV infections and measles, also increase a child's risk of contracting pneumonia.

The following environmental factors also increase a child's susceptibility to pneumonia:

- indoor air pollution caused by cooking and heating with biomass fuels (such as wood or dung)
- living in crowded homes
- parental smoking.



Treatment

Pneumonia should be treated with antibiotics. The antibiotic of choice is amoxicillin dispersible tablets. Most cases of pneumonia require oral antibiotics, which are often prescribed at a health centre. These cases can also be diagnosed and treated with inexpensive oral antibiotics at the community level by trained community health workers. Hospitalization is recommended only for severe cases of pneumonia.

Downloaded from: https://www.who.int/news-room/fact-sheets/detail/pneumonia

WEEK 44 EPI

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SYNDROMES





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INFLUENZA

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GASTROENTERITIS PAGE 7



RESEARCH PAPER

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Released November 15, 2019

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SENTINEL SYNDROMIC SURVEILLANCE



ETI

Parish Reports for the Four

Epidemiological Weeks -

Parish health departments submit reports weekly by 3 p.m. on Tuesdays. **Reports submitted after 3**

p.m. are considered late.

Map representing the

Timeliness of Weekly Sentinel Surveillance

Most Recent

Weeks 41 to 44

A syndromic surveillance system is good for early detection of and response to public health events.

Sentinel surveillance occurs when selected health facilities (sentinel sites) form a network that reports on certain health conditions on a regular basis, for example, weekly. Reporting is mandatory whether or not there are cases to report.

Jamaica's sentinel surveillance system concentrates on visits to sentinel sites for health events and syndromes of national importance which are reported weekly (see pages 2 -4). There are seventy-eight (78) reporting sentinel sites (hospitals and health centres) across Jamaica.



Weekly Visits to Sentinel Sites for Undifferentiated Fever All ages: Jamaica,

Weekly Threshold vs Cases 2019

REPORTS FOR SYNDROMIC SURVEILLANCE

1400

1200

1000

FEVER

Temperature of >38°C /100.4°F (or recent history of fever) with or without an obvious diagnosis or focus of infection.



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FEVER AND NEUROLOGICAL

Temperature of >38°C /100.4°F (or recent history of fever) in a previously healthy person with or without headache and vomiting. The person must also have meningeal irritation, convulsions, altered consciousness, altered sensory manifestations or paralysis (except AFP).



FEVER AND HAEMORRHAGIC

Temperature of >38°*C* /100.4°*F* (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice. Visits for Fever and Haemorrhagic symptoms were reported in weeks 4 to 8, 39,41,42, and 44, year to date.



FEVER AND JAUNDICE

Temperature of $>38^{\circ}C/100.4^{\circ}F$ (or recent history of fever) in a previously healthy person presenting with jaundice.

The epidemic threshold is used to confirm the emergence of an epidemic in order to implement control measures. It is calculated using the mean reported cases per week plus 2 standard deviations. Visits to sentinel sites for Fever and Jaundice were reported in weeks 7, 10, 33 and 43 only, year to date.



1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51

Epidemiological week

Epidemic Threshold



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NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



2019

HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



SENTINEL REPORT- 78 sites. Automatic reporting

ISSN 0799-3927

Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2019 vs. Weekly Threshold: Jamaica



Comments

CLASS ONE NOTIFIABLE EVENTS

			Confirmed YTD		AFP Field Guides	
	CLASS 1 EVENTS		CURRENT YEAR	PREVIOUS YEAR	from WHO indicate that for an effective surveillance system, detection rates for AFP should be 1/100,000 population under 15 years old (6 to 7) cases annually. Pertussis-like syndrome and Tetanus are clinically confirmed classifications.	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		60	172		
	Cholera		0	0		
	Dengue Hemorrhagic Fever*		NA	NA		
	Hansen's Disease (Leprosy)		0	0		
	Hepatitis B		23	85		
	Hepatitis C		2	7		
	HIV/AIDS		NA	NA		
	Malaria (Imported)		0	5		
	Meningitis (Clinically confirmed)		20	37		
EXOTIC/ UNUSUAL	Plague		0	0	* Dengue Hemorrhagic Fever	
H IGH MORBIDIT/ MORTALIY	Meningococcal Meningitis		0	0	data include Dengue related deaths; ** Figures include all deaths associated with pregnancy reported for the period.	
	Neonatal Tetanus		0	0		
	Typhoid Fever		0	0		
	Meningitis H/Flu		0	0		
SPECIAL PROGRAMMES	AFP/Polio		0	0		
	Congenital Rubella Syndrome		0	0		
	Congenital S	yphilis	0	0	*** CHIKV IgM	
	Fever and Rash	Measles	0	0	cases Sika	
		Rubella	0	0		
	Maternal Deaths**		52	54	I CK positive cases	
	Ophthalmia Neonatorum		190	266		
	Pertussis-like syndrome		0	0		
	Rheumatic Fever		0	0		
	Tetanus		0	0		
	Tuberculosis		51	69		
	Yellow Fever		0	0		
	Chikungunya***		7	10		
	Zika Virus ^{***}	*	0	1	NA- Not Available	

5 NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



SENTINEL REPORT- 78 sites. Automatic reporting

Released November 15, 2019

NATIONAL SURVEILLANCE UNIT **INFLUENZA REPORT**

ISSN 0799-3927

EW 44

	EW 44	YTD
SARI cases	17	453
Total Influenza positive Samples	8	426
Influenza A	7	383
H3N2	6	148
H1N1pdm09	0	226
Not subtyped	1	6
Influenza B	1	43
Parainfluenza	0	7

Epi Week Summary

During EW 44, 8 cases of influenza were detected. Percent positivity is 28.6 %.

During EW 44, 17 (seventeen) SARI admissions were reported.







Caribbean Update EW 44

Influenza and SARI activity continued at inter-seasonal levels with influenza A(H3N2), A(H1N1)pdm09, and influenza B viruses co-circulating in the subregion. In Jamaica, influenza activity continued increased with influenza A(H3N2) virus predominance; SARI cases remained at a low level.



NOTIFICATIONS-6 All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



9

SENTINEL REPORT- 78 sites. Automatic reporting

Dengue Bulletin

October 27- November 2, 2019 Epidemiological Week 44

Epidemiological Week 44







2500

Points to note:

- **figure as at November 11, 2019
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected dengue cases for 2018 and 2019 versus monthly mean, alert, and epidemic thresholds





NOTIFICATIONS-All clinical sites

DNS-

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



SENTINEL REPORT- 78 sites. Automatic reporting

RESEARCH PAPER

<u>ABSTRACT</u>

PAEDIATRIC DIABETES CARE AUDIT AT BUSTAMANTE HOSPITAL FOR CHILDREN: July 1st, 2012 – June 30th, 2013

Campbell D¹, Gabay L², Pierre R². ¹Bustamante Hospital for Children, ²University Hospital of the West Indies

Objective: To assess process of care of diabetic children at BHC as per American Diabetes Association (ADA) guidelines.

METHODOLOGY: Retrospective audit of medical records for patients with Diabetes Mellitus (DM) was conducted for the period July 1, 2012 – June 30, 2013. Data was collected on six (6) indices which were used to assess process of care: height, weight, blood pressure, self-monitoring of blood glucose (SMBG), HbA1c and educational advice/referral. A Score system was used to assess process of care as poor, fair or good. Data analysis was done with Statistical Package of Social Sciences v22.

<u>RESULTS</u>: Process of care assessment was poor for 5, fair for 31 and good for 8, of the 44 visits audited. Blood pressure and height were the least documented indices, whilst weight and SMBG were the most with 100% documentation. There were 9 DM related admissions. For documented HbA1c results only 15 recorded values were noted; 40% < 7.5, 33.3% with 7.5 – 8.5, 6.7% with 8.6 – 10 and 20% had > 10%.

<u>CONCLUSION</u>: Majority of visits audited had fair process. 50% of those with good process of care had comorbid obesity. Improvement needed in HbA1c testing. Education of health care professionals on current ADA guidelines for Paediatric DM care is needed as well as restructuring of services to provide recommended standard of care.



The Ministry of Health and Wellness 24-26 Grenada Crescent Kingston 5, Jamaica Tele: (876) 633-7924 Email: surveillance@moh.gov.jm



NOTIFICATIONS All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



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