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31. PsycINFO; 26 AND 29; 11 results.
32. MEDLINE,CINAHL,HMIC,AMED,PsycINFO; Duplicate filtered: [5 AND 6], [6 AND 8], [10 AND 12], [16 AND 17], [19 AND 20], [19 AND 22], [26 AND 29]; 38 results.

1. Maternal influenza infection during pregnancy impacts postnatal brain development in the rhesus monkey.

Citation: Biological Psychiatry, May 2010, vol./is. 67/10(965-973), 0006-3223 (May 15, 2010)

Author(s): Short, Sarah J; Lubach, Gabriele R; Karasin, Alexander I; Olsen, Christopher W; Styner, Martin; Knickmeyer, Rebecca C; Gilmore, John H; Coe, Christopher L

Correspondence Address: Short, Sarah J.: University of North Carolina at Chapel Hill, Neurosciences Hospital, 7023, 101 Manning Drive, Campus Box 7160, Chapel Hill, NC, US, 27599-7160, sjshort@med.unc.edu

Language: English

Abstract: Background: Maternal infection with influenza and other pathogens during pregnancy has been associated with increased risk for schizophrenia and neurodevelopmental disorders. In rodent studies, maternal inflammatory responses to influenza affect fetal brain development. However, to verify the relevance of these findings to humans, research is needed in a primate species with more advanced prenatal corticogenesis. Methods: Twelve pregnant rhesus monkeys were infected with influenza, A/Sydney/5/97 (H3N2), 1 month before term (early third trimester) and compared with 7 control pregnancies. Nasal swabs and blood samples confirmed viral shedding and immune activation. Structural magnetic resonance imaging was conducted at 1 year; behavioral development and cortisol reactivity were also assessed. Results: Maternal infections were mild and self-limiting. At birth, maternally derived influenza-specific immunoglobulin G was present in the neonate, but there was no evidence of direct viral exposure. Birth weight and gestation length were not affected, nor were infant neuromotor, behavioral, and endocrine responses. However, magnetic resonance imaging analyses revealed significant reductions in cortical gray matter in flu-exposed animals. Regional analyses indicated the largest gray matter reductions occurred bilaterally in cingulate and parietal areas; white matter was also reduced significantly in the parietal lobe. Conclusions: Influenza infection during pregnancy affects neural development in the monkey, reducing gray matter throughout most of the cortex and decreasing white matter in parietal cortex. These brain alterations are likely to be permanent, given that they were still present at the monkey-equivalent of older childhood and thus might increase the likelihood of later behavioral pathology. (PsycINFO Database Record (c) 2010 APA, all rights reserved) (journal abstract)

Country of Publication: HOLDER: Society of Biological Psychiatry; YEAR: 2010

Publication Type: Journal; Peer Reviewed Journal

Subject Headings:
*Brain Development
*Infectious Disorders
*Influenza
*Pregnancy
Monkeys
Mothers
Primates (Nonhuman)
Schizophrenia
Neurodevelopmental Disorders

Source: PsycINFO

2. Influenza virus-exposure during pregnancy impacts postnatal brain development in infant rhesus monkeys.

Citation: Dissertation Abstracts International: Section B: The Sciences and Engineering, 2010, vol./is. 70/11-B(7260), 0419-4217 (2010)

Author(s): Short, Sarah J

Language: English

Abstract: Prenatal influenza infections have been associated with increased risk for neurodevelopmental disorders. Evidence from rodent models demonstrates that prenatal immunological events can alter fetal brain development--an effect that is mediated in part by the maternal inflammatory response. Studies have also shown that the gestational

timing of an infection results in different behavioral and neural abnormalities in the offspring. Neuroimmune interactions between maternal, placental, and fetal systems are inherently complex. Thus, the first nonhuman primate model of maternal influenza infection was created to investigate the impact on offspring brain and behavioral development, following viral exposure either during mid- or late-gestation. Pregnant rhesus monkeys, in the Mid-Influenza (MI) cohort (n=19) or in the Late-Influenza (LI) cohort (n=24), were infected with influenza virus, A/Sydney/5/97(H3N2), during their 169-day gestation either at Day 105 or Day 125, respectively. Nasal swabs and blood samples confirmed viral infection and immune activation in experimental animals. Infants in the MI cohort included 12 experimental (n=7 males, n=5 females) and 12 control monkeys (n=8 males, n=4 females). Infants in the LI cohort included 12 experimental (n=7 males, n=5 females) and 7 control monkeys (n=3 males, n=4 females). Brain development was examined in yearling offspring with MRI for structural alterations at global and regional levels. Behavioral assessments and cortisol levels were also examined. Maternal infection was mild and self-limiting. Reductions in global and cortical gray matter (GM) were found in LI offspring ($p<.05$) from influenza pregnancies. These offspring also evinced regional reductions in cingulate and parietal areas ($p<.05$) accompanied by increases in cingulate WM. MI offspring showed increases in total brain volumes, specific to males. These animals also evinced regional volume increases in GM occipital and temporal-limbic regions ($p<.05$) over control males. Gestational timing appeared to influence the specific effects of prenatal influenza infection on neural development in opposing ways. It is unclear whether these differences were due to variation in maternal responses to infection, fetal sex-steroid production, or greater vulnerability of the fetal brain at certain points in cortical development. However, the observed alterations in brain maturation may increase the risk for pathology later in development. (PsycINFO Database Record (c) 2010 APA, all rights reserved)

Publication Type: Dissertation Abstract

Subject Headings:
*Brain
*Influenza
*Monkeys
*Neural Development
*Pregnancy

Source: PsycINFO

3. Maternal influenza vaccination and effect on influenza virus infection in young infants

Citation: Archives of Paediatric and Adolescent Medicine, 2010, 1538-3268

Author(s): Eick, Angelia A; Uyeki, Timothy M; Klimov, Alexander; Hall, Henrietta; Reid, Raymond

Language: English

Abstract: Record in progress

Publication Type: Article

Subject Headings:
Mothers
Pregnancy
Vaccines
Immunisation
Infants
influenza
Infection
Reduction
Antibodies

Source: HMIC

4. Influenza immunization in pregnancy.

Citation: Obstetrics & Gynecology, August 2009, vol./is. 114/2 Pt 1(365-8), 0029-7844;0029-7844 (2009 Aug)

Author(s): MacDonald NE; Riley LE; Steinhoff MC

Institution: Dalhousie University, IWK Health Center, Halifax, Nova Scotia, Canada.

Language: English

Abstract: Among healthy persons, two groups are notable for increased risk of serious illness and hospitalization with influenza infection: healthy women in pregnancy and their healthy infants (aged 0 to 6 months). Inactivated influenza vaccine has been used in pregnant women since the 1960s in both the United States and Canada; however, currently, only 15% of pregnant women receive the vaccine. A randomized, controlled trial has shown influenza immunization of pregnant women reduced influenza-like illness by more than 30% in both the mothers and the infants and reduced laboratory-proven influenza infections in 0- to 6-month-old infants by 63%. Physicians caring for pregnant women should be aware of the risks of influenza and of the availability of an effective and cost-saving intervention.

Country of Publication: United States

CAS Registry Number: 0 (Influenza Vaccines)

Publication Type: Journal Article; Randomized Controlled Trial

Subject Headings:
Female
Humans
Immunization
Infant
Infant, Newborn
*Influenza Vaccines
*Influenza, Human/pc [Prevention & Control]
Maternal-Fetal Exchange
*Pregnancy
*Pregnancy Complications, Infectious/pc [Prevention & Control]

Source: MEDLINE

5. Economic value of seasonal and pandemic influenza vaccination during pregnancy

Citation: Clinical Infectious Diseases, 2009, vol./is. 49/12, 1537-6591

Author(s): Beigi, Richard H; Wiringa, Ann E; Bailey, Rachel R; Assi, Tina Marie; Lee, Bruce Y

Language: English

Abstract: Record in progressThe cost-effectiveness of maternal influenza immunisation against laboratory-confirmed influenza has never been studied. The current 2009 H1N1 influenza pandemic provides a timely opportunity to perform such analyses. The study objective was to evaluate the cost-effectiveness of maternal influenza vaccination using both single and two-dose strategies against laboratory-confirmed influenza secondary to both seasonable epidemics and pandemic influenza outbreaks. A cost-effectiveness decision analytic model construct using epidemic and pandemic influenza characteristics from both the societal and third-party payor perspectives. A comparison was made between vaccinating all pregnant women in the United States versus not vaccinating pregnant women. Probabilstic (Monte Carlo) sensitivity analyses were also performed. The main outcome measures were incremental cost-effectiveness ratios (ICERs). The results were, maternal influenza vaccination using either the single or two-dose strategy is a cost effective approach when influenza prevalence greater than or equal to 7.5% and influenza-attributable mortality is greater than or equal to 1.05% (consistent with epidemic strains). As the prevalence of influenza and/or severity of the outbreak increases the incremental value of vaccination also increases. At a higher prevalence of influenza (greater than or equal to 30%) the single-dose strategy demonstrates cost-savings while the two-dose strategy remains highly cost-effective (ICER, less than or equal to $6,787.77 per quality-adjusted life year). The conclusions were, maternal influenza immunization is a highly cost-effective intervention at disease rates and severity that correspond to both seasonal influenza epidemics and occasional pandemics. These findings justify ongoing

efforts to optimize influenza vaccination during pregnancy from an economic perspective. [Journal abstract]

Publication Type: Article

Subject Headings:
influenza
Pandemics
Seasonal factors
Immunisation
Vaccines
Pregnancy
Cost effectiveness
Economic factors
Pregnant women

Source: HMIC

6. [Swine flu and pregnancy: how to protect yourself and your baby]

Citation: , 2009

Corporate/Institutional Author: Department of Health; Central Office of Information

Language: English

Abstract: This leaflet gives information about: the swine flu vaccination that you can have during pregnancy to help protect you and your baby; precautions you can take to reduce your risk of infection; treatments that are available if you do become ill. [Book abstract]

Publisher: London: Department of Health, 2009

Subject Headings:
swine influenza
Consumer health information
Pregnant women
Pregnancy
Vaccines
Immunisation
Anti viral agents
Pandemics

Source: HMIC

7. A (H1N1) Swine Influenza : update on vaccination programme.

Citation: , 2009

Author(s): Dalton, Ian

Corporate/Institutional Author: Great Britain. Department of Health

Language: English

Abstract: This letter from the National Director of NHS Flu Resilience, further to the letter sent on the 15th October, and following the start of the vaccination programme on the 21st October, sets out additional information relevant to the campaign. [Introduction]

Publisher: London : DH, 2009

Subject Headings:
Immunisation
Pregnancy
swine influenza
Women

Source: HMIC

8. Swine flu vaccination programme : information to support the vaccination of pregnant women.

Citation: , 2009

Author(s):	Salisbury, D. M.
Corporate/Institutional Author:	Great Britain. Department of Health
Language:	English
Abstract:	This letter from the Director of Immunisation gives information about the vaccination of pregnant women. [Introduction]
Publisher:	London : DH, 2009
Subject Headings:	Immunisation Pregnancy swine influenza Women
Source:	HMIC

9. Maternal infection during pregnancy and schizophrenia.

Citation:	Journal of Psychiatry & Neuroscience, May 2008, vol./is. 33/3(183-185), 1180-4882;1488-2434 (May 2008)
Author(s):	Boksa, Patricia
Correspondence Address:	Boksa, Patricia: Douglas Institute - Research, Pavilion Perry, Rm. E-2110, 6875 LaSalle Blvd., Verdun, Montreal, PQ, Canada, H4H 1R3, patricia.boksa@mcgill.ca
Language:	English
Abstract:	For a few decades now, maternal infection during pregnancy has been considered a plausible risk factor for schizophrenia. In addition to influenza, a wide variety of other maternal infections during pregnancy have been reported to be associated with increased risk for schizophrenia. These include maternal infections with other viruses as well as maternal bronchopneumonia (which is largely bacterial), maternal infection with the parasite causing toxoplasmosis and infections of the maternal genital and reproductive systems. Of course, maternal infection during pregnancy is not thought to be the sole cause of schizophrenia but is speculated to act in interaction with other etiologic factors. Work in the area of animal modeling is now also attempting to approach the question of the mechanism by which a maternal infection might affect fetal brain development. If maternal infection is a clear risk factor for schizophrenia, this raises several clinical questions for prevention. Should maternal influenza vaccination be more aggressively promoted? What about prevention of other infections? Do anti-inflammatory/antipyretic drugs have positive or negative effects? Is reduction of fever sufficient, or should inhibition of specific cytokines be targeted? (PsycINFO Database Record (c) 2010 APA, all rights reserved)
Publication Type:	Journal; Peer Reviewed Journal
Subject Headings:	*Etiology *Influenza *Pregnancy *Risk Factors *Schizophrenia Anti Inflammatory Drugs Immunization Infectious Disorders
Source:	PsycINFO
Full Text:	Available in *fulltext* at *ProQuest (Legacy Platform)*

10. Viral regulation of aquaporin 4, connexin 43, microcephalin and nucleolin.

Citation:	Schizophrenia Research, January 2008, vol./is. 98/1-3(163-177), 0920-9964 (Jan 2008)
Author(s):	Fatemi, S. Hossein; Folsom, Timothy D; Reutiman, Teri J; Sidwell, Robert W

Correspondence Address: Fatemi, S. Hossein: Department of Psychiatry, Division of Neuroscience Research, University of Minnesota Medical School, MMC 392, 420 Delaware St. S.E., Minneapolis, MN, US, 55455, fatem002@umn.edu

Language: English

Abstract: The current study investigated whether human influenza viral infection in midpregnancy leads to alterations in proteins involved in brain development. Human influenza viral infection was administered to E9 pregnant Balb/c mice. Brains of control and virally-exposed littermates were subjected to microarray analysis, SDS-PAGE and western blotting at three postnatal stages. Microarray analysis of virally-exposed mouse brains showed significant, two-fold change in expression of multiple genes in both neocortex and cerebellum when compared to sham-infected controls. Levels of mRNA and protein levels of four selected genes were examined in brains of exposed mice. Nucleolin mRNA was significantly decreased in day 0 and day 35 neocortex and significantly increased in day 35 cerebellum. Protein levels were significantly upregulated at days 35 and 56 in neocortex and at day 56 in cerebellum. Connexin 43 protein levels were significantly decreased at day 56 in neocortex. Aquaporin 4 mRNA was significantly decreased in day 0 neocortex. Aquaporin 4 protein levels decreased in neocortex significantly at day 35. Finally, microcephalin mRNA was significantly decreased in day 56 neocortex and protein levels were significantly decreased at day 56 cerebellum. These data suggest that influenza viral infection in midpregnancy in mice leads to long-term changes in brain markers for enhanced ribosome genesis (nucleolin), increased production of immature neurons (microcephalin), and abnormal glial-neuronal communication and neuron migration (connexin 43 and aquaporin 4). (PsycINFO Database Record (c) 2010 APA, all rights reserved) (journal abstract)

Publication Type: Journal; Peer Reviewed Journal

Subject Headings:
*Influenza
*Mice
*Pregnancy
*Proteins
*Viral Disorders

Source: PsycINFO

11. Influenza vaccination in pregnancy: current evidence and selected national policies

Citation: Lancet Infectious Diseases, 2008, vol./is. 8/1, 1473-3099

Author(s): Mak, Tippi K; Mangtani, Punam; Leese, Jane; Watson, John M; Pfeifer, Dina

Language: English

Abstract: In several countries, pregnant women are recommended seasonal influenza vaccination and identified as a priority group for vaccination in the event of a pandemic. The authors review the evidence for the risks of influenza and the risks and benefits of seasonal influenza vaccination in pregnancy. Data on influenza vaccine safety in pregnancy are inadequate, but the few published studies report no serious side-effects in women or their infants, including no indication of harm from vaccination in the first trimester. National policies differ widely, mainly because of the limited data available, particularly on vaccination in the first trimester. The evidence of excess morbidity during seasonal influenza supports vaccinating healthy pregnant women in the second or third trimester and those with comorbidities in any trimester. The evidence of excess mortality in two previous influenza pandemics supports vaccinating in any trimester during a pandemic. Cites 64 references. [Journal abstract]

Publication Type: Article

Subject Headings:
Pregnancy
influenza
Immunisation
Risks
Health policy
Statistical data

Source: HMIC

Full Text: Available in *fulltext* at *ProQuest (Legacy Platform)*

12. Influenza vaccination in pregnancy: current evidence and selected national policies.

Citation: The Lancet Infectious Diseases, January 2008, vol./is. 8/1(44-52), 1473-3099;1473-3099 (2008 Jan)

Author(s): Mak TK; Mangtani P; Leese J; Watson JM; Pfeifer D

Institution: Department of Public Health and Epidemiology, Swiss Tropical Institute, Basel, Switzerland.

Language: English

Abstract: In several countries, pregnant women are recommended seasonal influenza vaccination and identified as a priority group for vaccination in the event of a pandemic. We review the evidence for the risks of influenza and the risks and benefits of seasonal influenza vaccination in pregnancy. Data on influenza vaccine safety in pregnancy are inadequate, but the few published studies report no serious side-effects in women or their infants, including no indication of harm from vaccination in the first trimester. National policies differ widely, mainly because of the limited data available, particularly on vaccination in the first trimester. The evidence of excess morbidity during seasonal influenza supports vaccinating healthy pregnant women in the second or third trimester and those with comorbidities in any trimester. The evidence of excess mortality in two previous influenza pandemics supports vaccinating in any trimester during a pandemic.

Country of Publication: United States

CAS Registry Number: 0 (Influenza Vaccines)

Publication Type: Journal Article; Review

Subject Headings:
*Disease Outbreaks
Female
Great Britain/ep [Epidemiology]
Health Policy
Humans
Infant, Newborn
*Influenza Vaccines/ad [Administration & Dosage]
Influenza Vaccines/ae [Adverse Effects]
Influenza, Human/ep [Epidemiology]
*Influenza, Human/pc [Prevention & Control]
Influenza, Human/vi [Virology]
*Pregnancy/im [Immunology]
*Pregnancy Complications, Infectious/pc [Prevention & Control]
Pregnancy Outcome
Pregnancy Trimesters
Risk Assessment

Source: MEDLINE

Full Text: Available in *fulltext* at *ProQuest (Legacy Platform)*

13. Impact of influenza exposure on rates of hospital admissions and physician visits because of respiratory illness among pregnant women.

Citation: Canadian Medical Association Journal, February 2007, vol./is. 176/4(463-468), 0820-3946;1488-2329 (Feb 2007)

Author(s): Dodds, Linda; McNeil, Shelly A; Fell, Deshayne B; Allen, Victoria M; Coombs, Ann; Scott, Jeffrey; MacDonald, Noni

Correspondence Address: Dodds, Linda: Departments of Obstetrics, Perinatal Epidemiology Research Unit, IWK Health Centre, 5850/5980 University Ave., PO Box 9700, Halifax, NS, Canada, B3K 6R8, l.dodds@dal.ca

Language: English

Abstract: Background: Excess deaths have occurred among pregnant women during influenza pandemics, but the impact of influenza during nonpandemic years is unclear. We evaluated the impact of exposure during nonpandemic influenza seasons on the rates of hospital admissions and physician visits because of respiratory illness among pregnant women. Methods: We conducted a 13-year (1990-2002) population-based cohort study involving pregnant women in Nova Scotia. We compared rates of hospital admissions and physician office visits because of respiratory illness during the influenza season in each trimester of pregnancy with rates during the influenza season in the year before pregnancy and with rates in non-influenza seasons. Poisson regression analyses were performed to estimate rate ratios and 95% confidence intervals (CIs). Results: Of 134 188 pregnant women in the study cohort, 510 (0.4%) were admitted to hospital because of a respiratory illness during pregnancy and 33 775 (25.2%) visited their physician for the same reason during pregnancy. During the influenza seasons, the rate ratio of hospital admissions in the third trimester compared with admissions in the year before pregnancy was 7.9 (95% CI 5.0-12.5) among women with comorbidities and 5.1 (95% CI 3.6-7.3) among those without comorbidities. The rate of hospital admissions in the third trimester among women without comorbidities was 7.4 per 10 000 woman-months during the influenza season, compared with 5.4 and 3.1 per 10 000 woman-months during the peri- and non-influenza seasons respectively. Corresponding rates among women with comorbidities were 44.9, 9.3 and 18.9 per 10 000 woman-months. Only 6.7% of women with comorbidities had received influenza immunization. Interpretation: Our data support the recommendation that pregnant women with comorbidities should receive influenza vaccination regardless of their stage of pregnancy during the influenza season. Since hospital admissions because of respiratory illness during the influenza season were also increased among pregnant women without comorbidities, all pregnant women are likely to benefit from influenza vaccination. (PsycINFO Database Record (c) 2010 APA, all rights reserved) (journal abstract)

Publication Type: Journal; Peer Reviewed Journal

Subject Headings:
*Hospital Admission
*Influenza
*Pandemics
*Pregnancy
*Respiratory Tract Disorders
Comorbidity
Human Females
Physicians

Source: PsycINFO

Full Text: Available in *fulltext* at *EBSCO Host*
Available in *fulltext* at *ProQuest (Legacy Platform)*

14. Year-and-a-half old, dried Echinacea roots retain cytokine-modulating capabilities in an in vitro human older adult model of influenza vaccination

Citation: Planta Medica, October 2006, vol./is. 72/13(1207-15), 0032-0943 (2006 Oct)

Author(s): Senchina DS; Wu L; Flinn GN; Konopka del N; McCoy JA; Widrelechner MP; Wurtele ES; Kohut ML

Language: English

Abstract: Alcohol tinctures prepared from aged Echinacea roots are typically taken for preventing or treating upper respiratory infections, as they are purported to stimulate immunity in this context. The effects of long-term (> 1 year) dry storage on the capabilities of Echinacea spp. roots from mature individuals to modulate cytokine production are unknown. Using an older human adult model of influenza vaccination, we collected peripheral blood mononuclear cells from subjects 6 months post-vaccination and stimulated them in vitro with the two Type A influenza viruses contained in the trivalent 2004-2005 vaccine with a 50 % alcohol tincture prepared from the roots of one of seven Echinacea species: E. angustifolia, E. pallida, E. paradoxa, E. purpurea, E. sanguinea, E.

simulata, and E. tennesseensis. Before being processed into extracts, all roots had been stored under dry conditions for sixteen months. Cells were cultured for 48 hours; following incubation, supernatants were collected and assayed for interleukin-2, interleukin-10, and interferon-gamma production, cytokines important in the immune response to viral infection. Four species (E. angustifolia, E. purpurea, E. simulata, E. tennesseensis) augmented IL-10 production, diminished IL-2 production, and had no effect on IFN-gamma production. Echinacea pallida suppressed production of all cytokines; E. paradoxa and E. sanguinea behaved similarly, although to a lesser extent. The results from these in vitro bioactivity assays indicate that dried Echinacea roots stored for sixteen months maintain cytokine-modulating capacities. Our data support and extend previous research and indicate that tinctures from different Echinacea species have different patterns of immune modulation; further, they indicate that certain species may be efficacious in the immune response to viral infection.

Publication Type: Journal Article

Subject Headings: Roots
Influenza
Viral vaccines
Cytokines
humans
Prevention
Adult

Source: AMED

15. Inactivated influenza vaccination for people with spinal cord injury

Citation: Archives of Physical Medicine and Rehabilitation, November 2004, vol./is. 85/11(1886-9), 0003-9993 (2004 Nov)

Author(s): Trautner BW; Atmar RL; Hulstrom A; Darouiche RO

Language: English

Abstract: OBJECTIVE: To examine the antibody responses of people with spinal cord injury (SCI) to the commercially available trivalent influenza vaccine. DESIGN: Prospective trial of patients and controls. SETTING: Veterans Affairs medical center. PARTICIPANTS: Forty people with SCI and 40 able-bodied subjects. INTERVENTION: Intramuscular administration of inactivated influenza vaccine. MAIN OUTCOME MEASURES: Antibody responses were determined by using the standard hemagglutination-inhibition test before and 4 weeks after vaccination. Serum antibody responses were assessed as follows: (1) percentage of each cohort achieving a 4-fold or greater rise in antibody titer, (2) percentage of each cohort achieving a postvaccination antibody titer of 32 or more, and (3) postvaccination geometric mean antibody titers. RESULTS: The serum antibody responses to each vaccine antigen were similar for the SCI and the control cohorts for the 3 outcomes. Neither the time since injury (</=1 y vs >1 y) nor the level of injury (paraplegia vs quadriplegia) affected the vaccine antibody responses in the SCI cohort. Subjects older than 65 years had lower postvaccination serum antibody levels than those younger than 65 years (P <.05). CONCLUSIONS: People with SCI responded to influenza vaccination in a manner similar to able-bodied subjects and would be expected to benefit from vaccination.

Publication Type: Clinical Trial; Controlled Clinical Trial

Subject Headings: Spinal cord injuries
Influenza
Vaccines
Prevention

Source: AMED

16. Serologic evidence of prenatal influenza in the etiology of schizophrenia

Citation: Archives of General Psychiatry, August 2004, vol./is. 61/8(774-80), 0003-990X (2004 Aug)

Author(s): Brown AS; Begg MD; Gravenstein S; Schaefer CA; Wyatt RJ; Bresnahan M; Babulas VP; Susser ES

Language: English

Abstract: CONTEXT: Some, but not all, previous studies suggest that prenatal influenza exposure increases the risk of schizophrenia. These studies used dates of influenza epidemics and maternal recall of infection to define influenza exposure, suggesting that discrepant findings may have resulted from exposure misclassification. OBJECTIVE: To examine whether serologically documented prenatal exposure to influenza increases the risk of schizophrenia. DESIGN: Nested case-control study of a large birth cohort, born from 1959 through 1966, and followed up for psychiatric disorders 30 to 38 years later. SETTING: Population-based birth cohort. PARTICIPANTS: Cases were 64 birth cohort members diagnosed as having schizophrenia spectrum disorders (mostly schizophrenia and schizoaffective disorder). Controls were 125 members of the birth cohort, had not been diagnosed as having a schizophrenia spectrum or major affective disorder, and were matched to cases on date of birth, sex, length of time in the cohort, and availability of maternal serum. MAIN OUTCOME MEASURES: Archived maternal serum was assayed for influenza antibody in pregnancies giving rise to offspring with schizophrenia and matched control offspring. RESULTS: The risk of schizophrenia was increased 7-fold for influenza exposure during the first trimester. There was no increased risk of schizophrenia with influenza during the second or third trimester. With the use of a broader gestational period of influenza exposure-early to midpregnancy-the risk of schizophrenia was increased 3-fold. The findings persisted after adjustment for potential confounders. CONCLUSIONS: These findings represent the first serologic evidence that prenatal influenza plays a role in schizophrenia. If confirmed, the results may have implications for the prevention of schizophrenia and for unraveling pathogenic mechanisms of the disorder.

Publication Type: Journal Article

Subject Headings: Schizophrenia
Influenza
Etiology
Risk
Pregnancy

Source: AMED

Full Text: Available in *fulltext* at *Highwire Press*

17. The effect of osteopathic manipulative treatment on immune response to the influenza vaccine in nursing homes residents: a pilot study

Citation: Alternative Therapies in Health and Medicine, July 2004, vol./is. 10/4(74-6), 1078-6791 (2004 Jul-Aug)

Author(s): Noll DR; Degenhardt BF; Stuart MK; Werden S; McGovern RJ; Johnson JC

Language: English

Publication Type: Randomized Controlled Trial; Clinical Trial

Subject Headings: Manipulation osteopathic
Immune system
Vaccines
Influenza
Aged
Nursing homes

Source: AMED

Full Text: Available in *fulltext* at *ProQuest (Legacy Platform)*

18. Antibiotics and other anti-infective agents in pregnancy and lactation.

Citation: American Journal of Perinatology, November 2003, vol./is. 20/8(405-14), 0735-1631;0735-1631 (2003 Nov)

Author(s): Niebyl JR

Institution: Department of Obstetrics and Gynecology, University of Iowa Hospitals and Clinics, Iowa City, Iowa 52242, USA.

Language: English

Abstract: Serum levels of many drugs are lower in pregnancy compared with the nonpregnant state. Their renal clearance is higher and the maternal intravascular volume is expanded. Most antibiotics are safe for use in pregnancy and lactation. Tetracyclines cause fetal tooth discoloration and inhibition of bone growth if used in the second and third trimesters. Aminoglycosides carry a small risk of fetal ototoxicity. Quinolones may cause arthropathies in children, and so are currently not recommended for use in pregnancy. Most drugs are secreted into breast milk in very small amounts, not enough to have any therapeutic effect. The only antibiotics which may be of concern in nursing infants are sulfonamides and quinolones, and possibly metronidazole.

Country of Publication: United States

CAS Registry Number: 0 (Aminoglycosides); 0 (Anti-Bacterial Agents); 0 (Anti-Infective Agents); 0 (Antiviral Agents); 0 (Drug Combinations); 0 (Penicillins); 0 (Quinolones); 0 (Tetracyclines)

Publication Type: Journal Article; Review

Subject Headings:
Aminoglycosides/tu [Therapeutic Use]
Anti-Bacterial Agents/tu [Therapeutic Use]
*Anti-Infective Agents/tu [Therapeutic Use]
Antiviral Agents/tu [Therapeutic Use]
Drug Combinations
Female
Humans
Influenza, Human/dt [Drug Therapy]
Influenza, Human/pc [Prevention & Control]
*Lactation/de [Drug Effects]
Penicillins/tu [Therapeutic Use]
*Pregnancy/de [Drug Effects]
Pregnancy Complications, Infectious/dt [Drug Therapy]
Pregnancy Complications, Infectious/pc [Prevention & Control]
Quinolones/tu [Therapeutic Use]
Tetracyclines/tu [Therapeutic Use]

Source: MEDLINE

19. Prenatal exposure to influenza as a risk factor for adult schizophrenia.

Citation: Acta Psychiatrica Scandinavica, May 2003, vol./is. 107/5(331-335), 0001-690X;1600-0447 (May 2003)

Author(s): Limosin, F; Rouillon, F; Payan, C; Cohen, J. -M; Strub, N

Correspondence Address: Limosin, F.: Service de Psychiatrie, Hopital Albert Chenevier, 40 rue de Mesly, Creteil, France, 94010, Cedex, frederic.limosin@wanadoo.fr

Language: English

Abstract: Objective: Several, but not all epidemiological studies, have demonstrated a positive correlation between exposure to the virus during the second trimester of pregnancy and an increased risk to the infants for subsequently developing schizophrenia. The present study is the first be designed in France to examine the risk of gestational exposure to the influenza virus and subsequent development of schizophrenia. Method: A total of 974 adults with schizophrenia born between 1949 and 1981 were compared for risk of exposure to influenza with their non-schizophrenic siblings and with matched control patients. Results: Significantly more schizophrenic subjects than controls (both groups) had been exposed to the influenza virus during the fifth month of pregnancy (OR = 2.24,

CI: 1.49-3.35, and OR = 1.61, CI: 1.04-2.49). Conclusion: These results suggest that influenza infection during pregnancy is a neurodevelopmental risk factor for schizophrenia in adult life. (PsycINFO Database Record (c) 2010 APA, all rights reserved) (journal abstract)

Publication Type: Journal; Peer Reviewed Journal

Subject Headings:
*Influenza
*Pregnancy
*Prenatal Exposure
*Risk Factors
*Schizophrenia
Epidemiology

Source: PsycINFO

20. Maternal influenza and schizophrenia: A cohort study.

Citation: Dissertation Abstracts International: Section B: The Sciences and Engineering, March 2002, vol./is. 62/9-B(4242), 0419-4217 (Mar 2002)

Author(s): Watson, Jennifer Bunn

Language: English

Abstract: Previous studies have reported an increase in risk for schizophrenia among offspring whose mothers suffered from influenza during pregnancy. The purpose of our study was to investigate the interaction between family history of schizophrenia and second-trimester maternal influenza exposure as well as the hypothesis that influenza-exposed schizophrenics might be associated with a distinct, diagnostic subtype of paranoid schizophrenia. A search of the Finnish Hospital Psychiatric Register was conducted for schizophrenics exposed to the 1957 A2-influenza epidemic (Influenza-Exposed) and for schizophrenics born two years prior to the influenza epidemic (Non-Exposed). Within the Influenza-Exposed, two groups were created: (1) Influenza-Exposed schizophrenics with no first-degree relatives with schizophrenia were placed in the Exposed no relatives group or E-NR group, and (2) Influenza-Exposed schizophrenics with one or more relatives with a schizophrenia diagnosis were placed in the Exposed One or More Relatives group or E-OR group. The same two groups were created within the Non-Exposed schizophrenics. The second-trimester effect was observed in the Exposed no relatives group of schizophrenics but not in the Exposed one or more relatives group of schizophrenics. A second-trimester effect was not observed in the Non-Exposed schizophrenics. In the absence of a genetic liability (i.e., schizophrenics with no relatives who have schizophrenia), the second trimester influenza effect was observed. However, the second trimester effect was not observed in the E-OR group, i.e., schizophrenics who had a genetic liability for schizophrenia. Thus, an interaction between genes and maternal influenza exposure was not observed. In addition these data did not support the hypothesis that influenza-exposed schizophrenics were associated with a distinct, diagnostic subtype of paranoid schizophrenia. (PsycINFO Database Record (c) 2010 APA, all rights reserved)

Publication Type: Dissertation Abstract

Subject Headings:
*Genetics
*Influenza
*Pregnancy
*Schizophrenia
*Susceptibility (Disorders)

Source: PsycINFO

21. Impact of physician reminders on the use of influenza vaccinations: a randomized trial

Citation: Archives of Physical Medicine and Rehabilitation, March 2002, vol./is. 83/3(371-5), 0003-9993 (2002 Mar)

Author(s): Chan L; MacLehose RF; Houck PM

Language: English

Abstract: OBJECTIVE: To analyze the impact of mailed physician reminders to immunize their patients. DESIGN: Randomized trial involving Washington State physiatrists participating in the Medicare program. In 1997, all physiatrists in the state were separated into solo or group practice. Solo physicians and group practices were then separately randomized to receive 4 monthly reminders to have their patients immunized. In 1998, the intervention and control groups were switched. SETTING: The state of Washington. PATIENTS: A total of 4300 Medicare outpatients seen in Washington State in 1997 and 4025 patients in 1998. INTERVENTION: Repeated mailer. MAIN OUTCOME MEASURE: By using multivariate analysis, Medicare billing data was analyzed to determine the impact of the physician reminders on influenza vaccination rates. RESULTS: Among solo practitioners, patients whose physiatrist received the reminder letters in 1998 were 34% more likely (adjusted relative risk (RR) = 1.34; 95% confidence interval (CI), .96-1.88) to have a vaccination billing. Among group practitioners, those patients whose physiatrist received the reminder letters in 1997 were 26% more likely (RR = 1.26; 95% CI, .98-1.60) to have a vaccination billing. These differences, however, were not statistically significant. The adjusted RRs for the remaining intervention groups, solo practitioners in 1997 (RR = .89; 95% CI, .63-1.26), and group practitioners in 1998 (RR = 1.00; 95% CI,.73-1.36), revealed no increase in vaccination billings for patients whose physiatrist received the intervention. CONCLUSIONS: Repeated physician reminders did not increase the vaccination rate of Washington State Medicare patients who were seen by physiatrists in 1997 and 1998. These results were consistent whether the physiatrists were in solo or group practice. (ABSTRACT TRUNCATED).

Publication Type: Journal Article

Subject Headings: Influenza
Vaccines
Vaccination
Randomized controlled trials

Source: AMED

22. Accuracy of retrospective reports of infections during pregnancy.

Citation: International Journal of Methods in Psychiatric Research, 2002, vol./is. 11/4(184-186), 1049-8931;1557-0657 (2002)

Author(s): Voldsgaard, Peter; Schiffman, Jason; Mednick, Sarnoff; Rodgers, Bryan; Christensen, Heidi; Bredkjaer, Soren; Schulsinger, Fini

Correspondence Address: Schiffman, Jason, 3025 Royal St. #336, Los Angeles, CA, US, 90007

Language: English

Abstract: A large body of research suggests a relationship between maternal influenza and the development of schizophrenia in the adult offspring. Some researchers, however, have questioned this association. A study by Crow and Done (1992) asserts that prenatal exposure to influenza does not cause schizophrenia. The methodology employed by Crow and Done may account for their null findings. Crow and colleagues assessed influenza by asking mothers at the time of birth to recall influenza infections experienced during pregnancy. Such retrospective recall may bias reporting. We assessed influenza symptoms during pregnancy in a group of 136 mothers at the twenty-fifth week of pregnancy, and again one or two days after birth. We compared accounts of influenza at the twenty-fifth week to recollection of influenza after birth. Results suggest that mothers tend to under-report infections when recalling infections after birth. Retrospective assessment of influenza symptoms at birth may be an inaccurate method of assessing influenza during pregnancy. (PsycINFO Database Record (c) 2010 APA, all rights reserved) (journal abstract)

Publication Type: Journal; Peer Reviewed Journal

Subject Headings: *Influenza
*Memory
*Mothers

*Pregnancy
*Self Report

Source: PsycINFO

23. Seasonal flu vaccine for pregnant women.

Author(s): Salisbury, D. M.

Corporate/Institutional Author: Great Britain. Department of Health

Language: English

Abstract: This letter from the Director of Immunisation clarifies the advice for the seasonal flu vaccination of pregnant women: "all pregnant women who request the trivalent seasonal influenza vaccine should be offered it, irrespective of whether they have already received the monovalent H1N1v vaccine". [KJ]

Publisher: London : DH, 2010

Subject Headings: influenza
Immunisation
Pregnancy
Women
Clinical guidelines
NHS

Source: HMIC

24. Flu vaccination for pregnant women.

Author(s): Salisbury, D. M.

Corporate/Institutional Author: Great Britain. Department of Health

Language: English

Abstract: This letter from the Director of Immunisation to the Royal College of Midwives and Royal College of Obstetricians and Gynaecologists, seeks their support to urge their members to encourage all pregnant women, no matter what stage of pregnancy, to get their flu vaccine as soon as possible. [Introduction]

Publisher: London : DH, 2010

Subject Headings: influenza
Immunisation
Pregnancy
Women
Public health

Source: HMIC

25. CMO's update 26: a communication to all doctors from the Chief Medical Officer

Citation: , 2000

Corporate/Institutional Author: Department of Health

Language: English

Publisher: London: Department of Health, 2000

Publication Type: Book. Circular

Subject Headings: influenza
Immunisation
Coronary diseases
Sick leave

Food Standards Agency
General practitioner education
Professional education
Diabetes
Salmonella infections
Reptiles
medical records
Miners
Pregnancy
Organophosphates
Data Protection Act 1998
Escherichia coli
Prescribing
Breast
Oral contraceptives
Smoking cessation
Drug addiction
primary care
Young people
Women

Source: HMIC

26. Funffach-Impfung: Seit funf Jahren erfolgreich im Kamf gegen Infektionskrankheiten

Citation: Natura Med, 1999, vol./is. 14/8(27-9), 0931-1513 (1999)

Author(s): Anonymous

Language: German

Publication Type: Journal Article

Subject Headings:
Vaccination
Antiinfective agents
Program evaluation
Pertussis vaccine
Influenza
Pneumonia
Injections

Source: AMED

27. Maternal exposure to influenza and cold in pregnancy and electrodermal activity in offspring: The Mauritius study.

Citation: Psychophysiology, July 1997, vol./is. 34/4(427-435), 0048-5772;1469-8986 (Jul 1997)

Author(s): Venables, Peter H

Language: English

Abstract: Data are in conflict concerning whether a mother's exposure to influenza in pregnancy gives rise to an increased probability that her offspring will develop schizophrenia. In Northern Hemisphere studies, exposure to influenza and cold tend to be confounded. The present study, carried out in Mauritius, examines the effect of maternal exposure to the virus and separately to cold on aspects of electrodermal activity that have been shown in other studies to be related to schizophrenia. Groups of 3-yr-old children (N=1,751) whose mothers were exposed or not exposed to influenza in the 2nd and 3rd trimesters of pregnancy or who were or were not exposed to cold in the 1st, 2nd, and 3rd trimesters of pregnancy were examined. Results show that maternal exposure to influenza in the 2nd and 3rd trimesters gives rise to children who at the age of 3 yrs show electrodermal hyperresponsivity, whereas exposure to cold in the same periods gives rise to children who tend to be hyporesponsive. In both instances, exposure tends to produce lower levels of tonic activity than in those not exposed to the virus or to cold. (PsycINFO Database Record (c) 2010 APA, all rights reserved)

Publication Type: Journal; Peer Reviewed Journal

Subject Headings:
*Galvanic Skin Response
*Influenza
*Mothers
*Pregnancy
*Viral Disorders
Prenatal Exposure

Source: PsycINFO

28. "Maternal infectious illness and schizophrenia": Dr. Wright and colleagues reply.

Citation: The American Journal of Psychiatry, February 1997, vol./is. 154/2(293), 0002-953X;1535-7228 (Feb 1997)

Author(s): Wright, Padraig; Takei, Noriyoshi; Rifkin, Larry; Murray, Robin M

Language: English

Abstract: Replies to the comments of G. Stober et al (see record 84-22861) on the study by P. Wright et al (see record 1996-11531-001) regarding maternal influenza, obstetric complications, and schizophrenia. The authors are grateful to Stober et al for their comments on the Wright et al article, and for bringing their work in the German literature to the authors' attention. Wright et al accept that their reference to Stober et al's study lacked clarity in that they should have stated explicitly that the excess of 2nd trimester influenza they referred to was expressed as a proportion of mothers of patients who reported gestational infections, rather than as a proportion of mothers of all patients. The authors note that despite several methodological differences between the Stober et al and the Wright et al studies the findings largely concur.

Publication Type: Journal; Peer Reviewed Journal

Subject Headings:
*Infectious Disorders
*Influenza
*Obstetrical Complications
*Pregnancy
*Schizophrenia
Prenatal Exposure

Source: PsycINFO

Full Text:
Available in *fulltext* at *Highwire Press*
Available in *fulltext* at *ProQuest (Legacy Platform)*

29. Maternal infectious illness and schizophrenia.

Citation: The American Journal of Psychiatry, February 1997, vol./is. 154/2(292-293), 0002-953X;1535-7228 (Feb 1997)

Author(s): Stober, Gerald; Franzek, Ernst; Beckmann, Helmut

Language: English

Abstract: Comments on the article by P. Wright et al (see record 1996-11531-001) regarding the relationship between maternal influenza, obstetric complications, and schizophrenia. The authors congratulate Wright et al for their finding that among mothers of schizophrenic patients there was a significantly higher rate of gestational infection in the 2nd trimester and that these influenza-exposed patients were more likely to experience further obstetric complications. The Wright et al study replicated and confirmed for the 1st time the authors' own finding (G. Stober et al, see record 1993-17828-001) of a link among the recollection of maternal infectious disease, obstetric complications, and schizophrenia. However, Wright et al only provided a brief and inaccurate reference to the Stober et al study, which had presented most of the relevant findings of the Wright et al study years earlier. Specific findings of the Stober et al study which were confirmed by the Wright et al study are discussed.

Publication Type:	Journal; Peer Reviewed Journal
Subject Headings:	*Infectious Disorders *Influenza *Obstetrical Complications *Pregnancy *Schizophrenia Prenatal Exposure
Source:	PsycINFO
Full Text:	Available in *fulltext* at *Highwire Press* Available in *fulltext* at *ProQuest (Legacy Platform)*

30. Influenza immunisation

Citation:	, 1997
Corporate/Institutional Author:	Department of Health
Language:	English
Publisher:	London: Department of Health, 1997
Publication Type:	Book. Circular
Subject Headings:	influenza Preventive medicine health services Immunisation Malaria Leprosy HIV Acquired immune deficiency syndrome Occupational exposure health service staff Drug therapy Coronary diseases Pharmaceutical services Creutzfeldt Jakob disease Mental health services primary care Medical research Preventive medicine Medical ethics Professional confidentiality Patient privacy Medical education Clinical medicine Training Drug addiction Patient consent to treatment Pregnancy
Source:	HMIC

31. Specialist registrar training

Citation:	, 1997
Corporate/Institutional Author:	Department of Health
Language:	English
Publisher:	London: Department of Health, 1997

Publication Type: Book. Circular

Subject Headings:
Registrars
Training
Pseudorabies
Back pain
Maternity services
Schoolchildren
Health
Psychotherapy
HIV
primary care
Mental health
influenza
Immunisation
Pregnancy
Livestock
Creutzfeldt Jakob disease
Food hygiene
Carbon monoxide
Transplantation services
Statistical data
Congenital disorders
Limbs
Infant food
Nutritional value

Source: HMIC

32. A/NJ/8/76 influenza vaccination program: effects on maternal health and pregnancy outcome.

Citation: American Journal of Obstetrics & Gynecology, June 1981, vol./is. 140/3(240-5), 0002-9378;0002-9378 (1981 Jun 1)

Author(s): Deinard AS; Ogburn P Jr

Language: English

Abstract: One hundred eighty-nine women who were immunized with Influenza A/New Jersey/8/76 virus vaccine (InfA/NJ) just prior to or during their pregnancy were compared with a control group of 517 pregnant women who did not receive the vaccine. This longitudinal, prospective study demonstrated no association between immunization with InfA/NJ and maternal, perinatal, or infant complications. No teratogenicity was demonstrated, and the two groups of infants did not differ in physical or neurological assessments at birth and at 8 weeks of life.

Country of Publication: UNITED STATES

CAS Registry Number: 0 (Influenza Vaccines)

Publication Type: Journal Article; Research Support, U.S. Gov't, P.H.S.

Subject Headings:
Adolescent
Adult
Female
Humans
Infant, Newborn
Infant, Newborn, Diseases/et [Etiology]
*Influenza Vaccines/ae [Adverse Effects]
Longitudinal Studies
Middle Aged
*Pregnancy
Prospective Studies
United States

Source: MEDLINE

33. BLOOD GROUP A ACTIVITY OF INFLUENZA VIRUS PREPARATIONS AND THEIR POTENTIAL BEARING ON MOTHER-FOETUS INCOMPATIBILITIES.

Citation: Sangre, 1964, vol./is. 41/(403-9), 0036-4355;0036-4355 (1964)

Author(s): SPRINGER GF; TRITEL H; SCHUSTER R

Language: English

Country of Publication: SPAIN

CAS Registry Number: 0 (ABO Blood-Group System); 0 (Influenza Vaccines)

Publication Type: Journal Article

Subject Headings:
*ABO Blood-Group System
*Biomedical Research
*Hemagglutination
*Influenza Vaccines
*Maternal-Fetal Exchange
*Pharmacology
*Pregnancy

Source: MEDLINE

34. PARTIAL IMMUNOLOGICAL UNRESPONSIVENESS TO VIRUS ANTIGENS IN GUINEA-PIGS.

Citation: International Archives of Allergy & Applied Immunology, 1964, vol./is. 25/(83-8), 0020-5915;0020-5915 (1964)

Author(s): SCHWARTZ J; KLETTER J; KLOPSTOCK A

Language: English

Country of Publication: SWITZERLAND

CAS Registry Number: 0 (Antigens); 0 (Immune Sera); 0 (Influenza Vaccines)

Publication Type: Journal Article

Subject Headings:
*Animals, Newborn
*Antibody Formation
*Antigens
*Guinea Pigs
*Hemagglutination Inhibition Tests
*Immune Sera
*Immunity
*Influenza Vaccines
*Maternal-Fetal Exchange
*Mice
*Neutralization Tests
*Orthomyxoviridae
*Pregnancy
*Pregnancy, Animal
*Research
*Vaccinia virus

Source: MEDLINE