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ҚАЗАҚ ҰЛТТЫҚ МЕДИЦИНА
УНИВЕРСИТЕТІ



КАЗАХСКИЙ НАЦИОНАЛЬНЫЙ МЕДИЦИНСКИЙ
УНИВЕРСИТЕТ ИМЕНИ С.Д.АСФЕНДИЯРОВА

Школа Фармации

Кафедра: Политика и управление здравоохранением с курсом

Медицинское право

Дисциплина: Доказательная медицина

Проект на тему: Научные статьи в электронных базах об эффективности вакцинации против пневмонии

Выполнил: Ан Владимир Сергеевич

Курс: 4

Группа: ФА14-002-1

Преподаватель: Те Надежда Викторовна

Алматы, 2018 гг.

Проблема:

- Пневмококковая пневмония является наиболее частой формой пневмонии. В стационаре у пациентов с ревматоидным артритом и без него, необходима профилактика, а именно вакцинация против пневмонии, для предотвращения развития пневмококковой инфекции. Так как в ходе плановой проверки лечебно- профилактического учреждения выявлен факт увеличения уровня *Streptococcus pneumoniae*.

По PICO

- **P**- Пациенты с ревматоидным артритом.
- **I**- Вакцинация против пневмонии.
- **C**- Сравнение эффективности вакцины против пневмонии у больных с ревматоидным артритом и без данного заболевания.
- **O**- Предотвращение развития пневмонии в ЛПУ

Базовый вопрос

- Следует ли проводить вакцинацию против пневмонии у больных с ревматоидным артритом?
- Р- Больные с ревматоидным артритом
- I- Вакцинация против пневмонии
- С- нет
- О-нет

Прикладной вопрос

- Целесообразно ли проводить вакцинацию для предотвращения распространения *Streptococcus pneumoniae* у больных с ревматоидным артритом и больных не страдающих данным заболеванием?
- Р- Пациенты с ревматоидным артритом
- I- Вакцина против пневмонии
- С- Развитие заболевания у больных с ревматоидным артритом и без него
- О- Предотвращение распространения *Streptococcus pneumoniae*

Главная страница сайта PUBMED

The image shows a screenshot of the PubMed website homepage. At the top, there is a navigation bar with the NCBI logo, "Resources" and "How To" menus, and a "Sign in to NCBI" link. Below this is the "PubMed.gov" logo and the text "US National Library of Medicine National Institutes of Health". A search bar is present with a "Search" button and a "Help" link. The main content area features a large banner with a bookshelf and a tablet, titled "PubMed", with a description: "PubMed comprises more than 28 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites." Below the banner are three columns of links: "Using PubMed" (Quick Start Guide, Full Text Articles, FAQs, Tutorials, New and Noteworthy), "PubMed Tools" (Mobile, Single Citation Matcher, Batch Citation Matcher, Clinical Queries, Topic-Specific Queries), and "More Resources" (MeSH Database, Journals in NCBI Databases, Clinical Trials, E-Utilities (API), LinkOut). At the bottom, there are sections for "Latest Literature" (Am J Clin Nutr, Cell) and "Trending Articles" (How much protein can the body use in a single meal for muscle-building?). The browser window shows the URL "https://www.ncbi.nlm.nih.gov/pubmed/" and the Windows taskbar at the bottom with the time "20:00 06.03.2018".

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- [Am J Clin Nutr \(1\)](#)
- [Cell \(4\)](#)

Trending Articles

PubMed records with recent increases in activity

- [How much protein can the body use in a single meal for muscle-building? Implications for daily protein distribution. J Int Soc Sports Nutr. 2018.](#)

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Ключевые слова

- Вакцинация против пневмонии
- Vaccination against pneumonia

Поиск по ключевым словам

vaccination against pneu x

Защищено | <https://www.ncbi.nlm.nih.gov/pubmed/?term=vaccination+against+pneumonia>

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- [Early indication for a reduced burden of radiologically confirmed pneumonia in children following the introduction of routine vaccination against Haemophilus influenzae type b in Nha Trang, Vietnam.](#)
Flasche S et al. Vaccine. (2014)
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- [Maternal Influenza Immunization and Prevention of Severe Clinical Pneumonia in Young Infants: Analysis of Randomized Controlled Trials Conducted in Nepal, Mali, and South Africa.](#)
1. Omer SB, Clark DR, Aqil AR, Tapia MD, Nunes MC, Kozuki N, Steinhoff MC, Madhi SA, Wairagkar N; for BMGF Supported Maternal Influenza Immunization Trials Investigators Group. *Pediatr Infect Dis J.* 2018 Feb 13. doi: 10.1097/INF.0000000000001914. [Epub ahead of print]
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PMC Images search for vaccination against pneumonia

Поиск по ключевым словам

The image shows a web browser window displaying a PubMed search results page. The search query is "vaccination against pneumonia". The page shows 13 search results, with the first two visible. The interface includes a search bar, filters, and a list of articles with their titles, authors, and publication details.

Browser address bar: <https://www.ncbi.nlm.nih.gov/pubmed>

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- [The 23-valent pneumococcal polysaccharide vaccine in patients with rheumatoid arthritis: a double-blinded, randomized, placebo-controlled trial.](#)
Izumi Y, Akazawa M, Akeda Y, Tohma S, Hirano F, Ideguchi H, Matsumura R, Miyamura T, Mori S, Fukui T, Iwanaga N, Jiuchi Y, Kozuru H, Tsutani H, Saisyo K, Sugiyama T, Suenaga Y, Okada Y, Katayama M, Ichikawa K, Furukawa H, Kawakami K, Oishi K, Migita K.
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Migita K, Akeda Y, Akazawa M, Tohma S, Hirano F, Ideguchi H, Matsumura R, Suematsu E, Miyamura T, Mori S, Fukui T, Izumi Y, Iwanaga N, Jiuchi Y, Kozuru H, Tsutani H, Saisyo K, Yamanaka T, Ohshima S, Mori N, Matsumori A, Kitagawa K, Takahi K, Ozawa T, Hamada N, Nakajima K, Nagai H, Tamura N, Suenaga Y, Kawabata M, Matsui T, Furukawa H, Kawakami K, Oishi K.
Medicine (Baltimore). 2015 Dec;94(52):e2184. doi: 10.1097/MD.0000000000002184. Erratum in: Medicine (Baltimore). 2016 Feb;95(8):e8362. Oish, Kazunori [Corrected to Oishi, Kazunori].
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Titles with your search terms

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```
((("vaccination"[MeSH Terms] OR "vaccination"[All Fields]) AND against[All Fields] AND ("pneumonia"[MeSH Terms] OR "pneumonia"[All
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Поиск по ключевым словам

vaccination against pneu x

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[Effect of abatacept on the immunogenicity of 23-valent pneumococcal polysaccharide vaccination \(PPSV23\) in rheumatoid arthritis patients.](#)
Migita K, Akeda Y, Akazawa M, Tohma S, Hirano F, Ideguchi H, Kozuru H, Jiuchi Y, Matsumura R, Suematsu E, Miyamura T, Mori S, Fukui T, Izumi Y, Iwanaga N, Tsutani H, Saisyo K, Yamanaka T, Ohshima S, Mori N, Matsumori A, Takahi K, Yoshizawa S, Kawabe Y, Suenaga Y, Ozawa T, Hamada N, Komiya Y, Matsui T, Furukawa H, Oishi K.
Arthritis Res Ther. 2015 Dec 10;17:357. doi: 10.1186/s13075-015-0863-3.
PMID: 26653668 [Free PMC Article](#)
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[Prevention of serious events in adults 65 years of age or older: A comparison between high-dose and standard-dose inactivated influenza vaccines.](#)
DiazGranados CA, Robertson CA, Talbot HK, Landolfi V, Dunning AJ, Greenberg DP.
Vaccine. 2015 Sep 11;33(38):4988-93. doi: 10.1016/j.vaccine.2015.07.006. Epub 2015 Jul 26.
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Shiramoto M, Hanada R, Juergens C, Shoji Y, Yoshida M, Ballan B, Cooper D, Gruber WC, Scott DA, Schmoele-Thoma B.
Hum Vaccin Immunother. 2015;11(9):2198-206. doi: 10.1080/21645515.2015.1030550. Epub 2015 Jul 15.
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Dicko A, Dicko Y, Barry A, Sidibe Y, Mahamar A, Santara G, Dolo A, Diallo A, Doumbo O, Shafi F, François N, Yarzabal JP, Strezova A, Borys D, Schuerman L.
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Поиск по ключевым словам

vaccination against pneu x

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- [The association between antibody levels before and after 7-valent pneumococcal conjugate vaccine immunization and subsequent pneumococcal infection in chronic arthritis patients.](#)
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Iwata S, Kawamura N, Kuroki H, Tokoeda Y, Miyazu M, Iwai A, Oishi T, Sato T, Suyama A, François N, Shafi F, Ruiz-Guiñazú J, Borys D.
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Tregnaghi MW, Sáez-Llorens X, López P, Abate H, Smith E, Póseleman A, Calvo A, Wong D, Cortes-Barbosa C, Ceballos A, Tregnaghi M, Sierra A, Rodríguez M, Troitiño M, Carabajal C, Falaschi A, Leandro A, Castrejón MM, Lepetic A, Lommel P, Hausdorff WP, Borys D, Ruiz Guiñazú J, Ortega-Barría E, Yarzabal JP, Schuerman L; COMPAS Group.
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The 23-valent pneumococcal polysaccharide vaccine in patients with rheumatoid arthritis: a double-blinded, randomized, placebo-controlled trial.

Arthritis Res Ther. 2017 Jan 25;19(1):15. doi: 10.1186/s13075-016-1207-7.

The 23-valent pneumococcal polysaccharide vaccine in patients with rheumatoid arthritis: a double-blinded, randomized, placebo-controlled trial.

Izumi Y¹, Akazawa M², Akeda Y³, Tohma S¹, Hirano F¹, Ideguchi H¹, Matsumura R¹, Miyamura T¹, Mori S¹, Fukui T¹, Iwanaga N¹, Jiuchi Y¹, Kozuru H¹, Tsutani H¹, Saisyo K¹, Sugiyama T¹, Suenaga Y¹, Okada Y¹, Katayama M¹, Ichikawa K¹, Furukawa H¹, Kawakami K¹, Oishi K⁴, Migita K^{5,6}.

Author information

Abstract

BACKGROUND: Pneumococcal pneumonia is the most frequent form of pneumonia. We herein assessed the effectiveness of the 23-valent pneumococcal polysaccharide vaccine (PPSV23) in the prevention of pneumonia overall in rheumatoid arthritis (RA) patients at risk for infections. We hypothesized that PPSV23 vaccination is superior in preventing pneumococcal pneumonia compared with placebo in RA patients.

METHODS: A prospective, multicenter, double-blinded, randomized, placebo-controlled (1:1) trial was conducted across departments of rheumatology in Japanese National Hospital Organization hospitals. RA patients (n = 900) who had been treated with biological or immunosuppressive agents were randomly assigned PPSV23 or placebo (sodium chloride). The primary endpoints were the incidences of all-cause pneumonia and pneumococcal pneumonia. The secondary endpoint was death from pneumococcal pneumonia, all-cause pneumonia, or other causes. Cox regression models were used to estimate the risk of pneumonia overall for the placebo group compared with the vaccine group.

RESULTS: Seventeen (3.7%) of 464 patients in the vaccine group and 15 (3.4%) of 436 patients in the placebo group developed pneumonia. There was no difference in the rates of pneumonia between the two study groups. The overall rate of pneumonia was 21.8 per 1000 person-years for patients with RA. The presence of interstitial pneumonia (hazard ratio: 3.601, 95% confidence interval: 1.547-8.380) was associated with an increased risk of pneumonia in RA patients.

CONCLUSION: PPSV23 does not prevent against pneumonia overall in RA patients at relative risk for infections. Our results also confirm that the presence of interstitial lung disease is associated with pneumonia in Japanese patients with RA.

TRIAL REGISTRATION: UMIN-CTR UMIN000009566 . Registered 17 December 2012.

KEYWORDS: Interstitial lung disease; Pneumococcal polysaccharide vaccine; Pneumonia; Rheumatoid arthritis

PMID: 28122642 PMCID: PMC5264490 DOI: 10.1186/s13075-016-1207-7

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Efficacy of 23-valent pneumococcal vaccine in preventing pneumonia and improving quality of life in RA patients [BMJ. 2010]
Review PNEUMOCOCCAL VACCINE IN ADULTS REDUCES THE RISK OF PNEUMONIA [Klin Med (Mosk). 2016]
Review Vaccines for preventing pneumococcal infection in RA patients [Cochrane Database Syst Rev. 2003]

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- **23-валентная пневмококковая полисахаридная вакцина у пациентов с ревматоидным артритом.**
- **The 23-valent pneumococcal polysaccharide vaccine in patients with rheumatoid arthritis**

Тип медицинского исследования

Это рандомизированное контролируемое исследование. Так как:

- Проводилась рандомизация групп пациентов
- Есть контрольная группа(плацебо) и группа активного лечения

Сведения о местоположении и авторах:

- **Место проведения исследования:** Across departments of rheumatology in Japanese National Hospital Organization hospitals.
(Перекрестные отделы ревматологии в Японской национальной больнице)
- **Авторы:** Izumi Y¹, Akazawa M², Akeda Y³, Tohma S¹, Hirano F¹, Ideguchi H¹, Matsumura R¹, Miyamura T¹, Mori S¹, Fukui T¹, Iwanaga N¹, Jiuchi Y¹, Kozuru H¹, Tsutani H¹, Saisyō K¹, Sugiyama T¹, Suenaga Y¹, Okada Y¹, Katayama M¹, Ichikawa K¹, Furukawa H¹, Kawakami K¹, Oishi K⁴, Migita K^{5,6}.
- **Дата публикации:** 2017 Jan 25

- **METHODS:**

- A prospective, multicenter, double-blinded, randomized, placebo-controlled (1:1) trial was conducted across departments of rheumatology in Japanese National Hospital Organization hospitals. RA patients (n = 900) who had been treated with biological or immunosuppressive agents were randomly assigned PPSV23 or placebo (sodium chloride). The primary endpoints were the incidences of all-cause pneumonia and pneumococcal pneumonia. The secondary endpoint was death from pneumococcal pneumonia, all-cause pneumonia, or other causes. Cox regression models were used to estimate the risk of pneumonia overall for the placebo group compared with the vaccine group.

- **МЕТОДЫ:**

- Проспективное, многоцентровое, двойное слепое, рандомизированное, плацебо-контролируемое (1:1) исследование проводилось через отделения ревматологии в Японской национальной больнице. Пациенты с ревматоидным артритом (n = 900), которые получали биологические или иммунодепрессанты, случайным образом назначали PPSV23 или плацебо (хлорид натрия). Первичными конечными точками были случаи пневмонии других причин и пневмококковой пневмонии. Вторичной конечной точкой была смерть от пневмококковой пневмонии, и от пневмонии в остальных случаях или по другим причинам. Для оценки риска развития пневмонии в группе плацебо, по сравнению с группой вакцин использовались Модели регрессии Кокса.

- **RESULTS:**

- Seventeen (3.7%) of 464 patients in the vaccine group and 15 (3.4%) of 436 patients in the placebo group developed pneumonia. There was no difference in the rates of pneumonia between the two study groups. The overall rate of pneumonia was 21.8 per 1000 person-years for patients with RA. The presence of interstitial pneumonia (hazard ratio: 3.601, 95% confidence interval: 1.547-8.380) was associated with an increased risk of pneumonia in RA patients.

- **РЕЗУЛЬТАТЫ:**

- Пневмония развилась у 17 или(3,7%) из 464 пациентов в группе вакцины, и у 15 или(3,4%) из 436 пациентов в группе плацебо. Не было никакой разницы в темпах развития пневмонии между двумя исследовательскими группами. Общая частота пневмонии составила 21,8 на 1000 человек для пациентов с ревматоидным артритом. Наличие интерстициальной пневмонии (отношение рисков: 3,601, доверительный интервал 95%: 1,547-8,380) было связано с повышенным риском пневмонии у пациентов с ревматоидным артритом.

- ***CONCLUSION:***

- PPSV23 does not prevent against pneumonia overall in RA patients at relative risk for infections. Our results also confirm that the presence of interstitial lung disease is associated with pneumonia in Japanese patients with RA.

- ***ВЫВОД:***

- PPSV23 не предотвращает появление пневмонии у пациентов с РА при относительном риске заражения. Наши результаты также подтверждают, что наличие интерстициального заболевания легких связано с пневмонией у японских пациентов с РА.

Мое мнение:

- Таким образом мы выяснили, что **23-валентная пневмококковая полисахаридная вакцина** нецелесообразна для профилактики развития пневмонии у пациентов с ревматоидным артритом.

Благодарю за внимание!

