(b)(6)From:

Fri, 16 Oct 2009 10:23:28 -0400 Sent: To: Destefano, Frank (CDC/OD/OCSO) Markowitz, Lauri (CDC/CCID/NCHHSTP) Cc:

Subject: Fw: CERVARIX approved in US

Attachments: 20091016095208.pdf

Dear Frank:

Attached is the FDA approval letter for Cervarix. We thought it might be useful for you to see what postmarketing studies they have requested.

Best regards, Peggy

Margaret B. Rennels, M.D. Executive Director, U.S. Scientific Vaccine Policy GlaxoSmithKline Biologicals Suite800 1050 K St. NW Washington, D.C. 20001

office: 202-715-1026

fax 202-715-1001

(b)(6)

From: Saddier, Patricia

Sent: Mon, 17 May 2010 20:34:35 -0400

To: Destefano, Frank (CDC/OID/NCPDCID)

Cc: Liaw, Kai-Li

Subject: FW: VSD question

Attachments: ACIP_HPV_Oct 2008.pdf

Dear Frank,

The lead epidemiologist for Gardasil (HPV4 vaccine) at Merck, Dr. Kai-Li Liaw (copied on this e-mail), has a couple of questions on the VSD study for GARDASIL and I thought you might be able to help us.

In the attached ACIP presentation made by the VSD study investigators in October 2008, slide 6 lists the AEs of interest in the VSD study along with the time window for each. We are wondering what the last column entitled "first in what period?" represents. For most AEs, it seems to match pretty closely the time window of interest, but we were wondering why for VTE, the window was 42 days when the "period" column indicates "1 year".

We would greatly appreciate it if you could help us with this question or direct us to some one who could.

Thank you in advance for your help.

Kind regards, Patricia

Patricia Saddier, MD PhD Senior Director, Epidemiology Merck Research Laboratories 351 North Sumneytown Pike, UG1D-60 North Wales, PA 19454-25059

| North | Wales, | PA 194 | 54-2505 | 9 | |
|--------|--------|--------|---------|---|--|
| (b)(6) | | | | | |
| (2)(0) | | | | | |
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| | | | | | |
| | | | | | |

From: Liaw, Kai-Li

Sent: Monday, May 17, 2010 12:14

To: Saddier, Patricia **Subject:** VSD question

Hi Patricia,

Per our discussion, here's the slide deck, please refer to page 6. Thanks so much!

<<ACIP HPV Oct 2008.pdf>>

Kai-Li

Kai-Li Liaw (b)(6) Notice: This e-mail message, together with any attachments, contains information of Merck & Co., Inc. (One Merck Drive, Whitehouse Station, New Jersey, USA 08889), and/or its affiliates Direct contact information for affiliates is available at

http://www.merck.com/contact/contacts.html) that may be confidential, proprietary copyrighted and/or legally privileged. It is intended solely for the use of the individual or entity named on this message. If you are not the intended recipient, and have received this message in error, please notify us immediately by reply e-mail and then delete it from your system.

Vaccine Safety Datalink Project: Monitoring the Safety Of Quadrivalent Human Papillomavirus Vaccine (HPV4)

Advisory Committee on Immunization Practices Meeting, October 22, 2008

Julianne Gee, MPH¹
Allison Naleway, PhD²
Irene Shui, MPH³

¹Center for Disease Control and Prevention, Atlanta GA

- ² Kaiser Permanente Northwest, Portland OR
- ³ Harvard Pilgrim, Boston MA



Vaccine Safety Datalink (VSD)

Collaboration between CDC and 8 managed care organizations
Data from 8.8 million members captured annually (3% of US population)



Vaccine Safety Datalink (VSD)

- Established in 1990 to improve the evaluation of vaccine safety through use of active surveillance and epidemiological studies
 - Addressed limitations of the Vaccine Adverse Event Reporting System (VAERS)
 - Responded to needs identified by two Institute of Medicine reports
- VSD tests hypotheses suggested by VAERS reports and pre-licensure trials



Rapid Cycle Analysis (RCA)

- Alternative to traditional post-licensure vaccine safety study methods, which generally take years to complete
- **RCA Studies:**
 - Tests specific hypotheses with well-defined outcomes
 - Each week, evaluate the number of events in vaccinated persons
 - Compare it to the expected number of events based on a comparison group
 - Historical or concurrent
 - Weekly analyses with statistical adjustment for multiple looks





HPV4 RCA Study

- Objective: Identify associations between HPV4 and a pre-specified list of adverse outcomes in females age 9-26 years
- 7 participating VSD sites
- Females 9-26 yrs
 - Youth: 9-17 yrs
 - Adults: 18-26 yrs
- Data from August 20, 2006-July 20, 2008
 - Allow for late arriving data
- Monitor until:
 - Youth: 350,000 doses
 - Adults: 150,000 doses



HPV RCA Outcomes

| Outcome | Exposure window (days) | Medical Setting | First in what period? |
|----------------------------------|------------------------|-----------------|-----------------------|
| New States - States - States | willdow (days) | Medical Setting | periou |
| Guillain Barré Syndrome (GBS) | 1 to 42 | All | 42 days |
| Seizures | 0 to 42 | Inpatient, ED | 42 days |
| Syncope | 0 | All | 2 days |
| Appendicitis | 0 to 42 | Inpatient, ED | 42 days |
| Stroke | 0 to 42 | Inpatient, ED | 42 days |
| Venous Thromboembolism | | | |
| (VTE) | 1 to 42 | All | 1 year |
| Anaphylaxis | 0 to 2 | All | 2 days |
| Other Allergic rxns | 0 to 2* | All | 42 days |

^{*}exclude day 0 if clinic setting

HPV4 RCA: Cohort

- Exposed cohort: Females 9-26 years receiving HPV4
- Historical comparison group (Poisson Max SPRT*):
 - Background rates of select outcomes for females 9-26 yr of age:
 - Enrolled in a participating VSD site
 - Other data sources (Health Care Utilization Project)
 - Outcomes: GBS, Appendicitis, Stroke, VTE
- Concurrent comparison group (Flex Exact Sequential Analysis)
 - Females in the same age range who had a preventative or vaccination visit during the same time period as the exposed group
 - Outcomes: Seizures, Syncope, Allergic Reactions
- No formal comparison being performed for anaphylaxis



^{*} Poisson Maximum Sequential Probability Ratio Test

Poisson MaxSPRT Analysis

 Observed number of events compared to expected number from historical group

 Association ("signal") detected if critical value of log likelihood ratio (LLR) exceeded



Flexible Exact Sequential Analysis

- Threshold p-value is established that accounts for continuous monitoring
- Observed number of events compared to expected number from concurrent group
 - matched by the variables of interest
- Association ("signal") detected if weekly pvalue is less than the threshold p-value



Preliminary Results: HPV4 Doses Administered

- Total HPV4 doses administered (through week July 20, 2008): 377,960
 - Youth: 259,986
 - Adults: 117,974
- Total utilization by dose:
 - Dose 1: 50.4%
 - Dose 2: 31.5 %
 - Dose 3: 18.1%



Preliminary Results: Historical Comparison - Adults

| Outcome | Events Observed | Events Expected | RR | Log Likelihood Ratio (LRR) | Critical Value of LRR | Signal ? |
|--------------|--------------------|--------------------|------|-------------------------------------|-----------------------------|-------------|
| GBS | 0 | 0.31 | 0.00 | 0.00* | 2.86 | No |
| | | | | 11 11 | | 14 |
| Appendicitis | 21 | 21.12 | 0.99 | 0.00* | 3.68 | No |
| | | | | | F BE | |
| Stroke | 3 | 1.58 | 1.91 | 0.51 | 2.97 | No |
| | | | | | | |
| VTE | 7 | 10.11 | 0.69 | 0.00* | 3.57 | No |

^{*} LRR is automatically set to zero when RR < 1





Preliminary Results: Concurrent Comparison- Adult

| Outcome | Exposed Cases | Unexposed Cases | Comparison visit | RR | Binomial Test P- Value | Threshold P-Value | Signal ? |
|--------------------------------|------------------|--------------------|---------------------|------|------------------------------|----------------------|-------------|
| Seizure | 18 | 26 | PC | 1.18 | 0.39 | 0.02 | No |
| Syncope | 129 | 57 | Vac | 0.54 | 0.99 | 0.03 | No |
| Other Allergic reactions | 32 | 7 | Vac | 1.45 | 0.26 | 0.02 | No |

Total preventative care (PC) comparison visits: 211,878

Total vaccination (Vac) comparison visits: 34,917



Preliminary Results: Historical Comparison-Youth

| Outcome | Events Observed | Events Expected | RR | Log Likelihood Ratio (LRR) | Critical Value of LRR | Signal ? |
|--------------|--------------------|--------------------|------|-------------------------------------|-----------------------------|-------------|
| GBS | 0 | 0.50 | 0.00 | 0.00* | 2.86 | No |
| | | | | | | |
| Appendicitis | 33 | 41.99 | 0.79 | 0.00* | 3.86 | No |
| | | | | | | |
| Stroke | 0 | 0.84 | 0.00 | 0.00* | 2.97 | No |
| | | | | | | |
| VTE | 7 | 3.57 | 1.96 | 1.28 | 3.25 | No |

^{*} LRR is automatically set to zero when RR < 1





Preliminary Results: Concurrent Comparison- Youth

| Outcome | Exposed Cases | Unexposed Cases | Comparison Visit | RR | Binomial Test P- Value | Threshold P-Value | Signal ? |
|--------------------------|------------------|--------------------|---------------------|------|------------------------------|----------------------|-------------|
| Seizure | 34 | 14 | PC | 1.13 | 0.45 | 0.02 | No |
| Syncope | 452 | 120 | Vac | 0.99 | 0.56 | 0.04 | No |
| Other allergic reactions | 44 | 24 | Vac | 0.75 | 0.85 | 0.02 | No |

Total comparison preventative care (PC) visits: 141,329

Total comparison vaccination (Vac) visits: 106,252



Syncope Logistic Regression Results: Concurrent Comparison Group

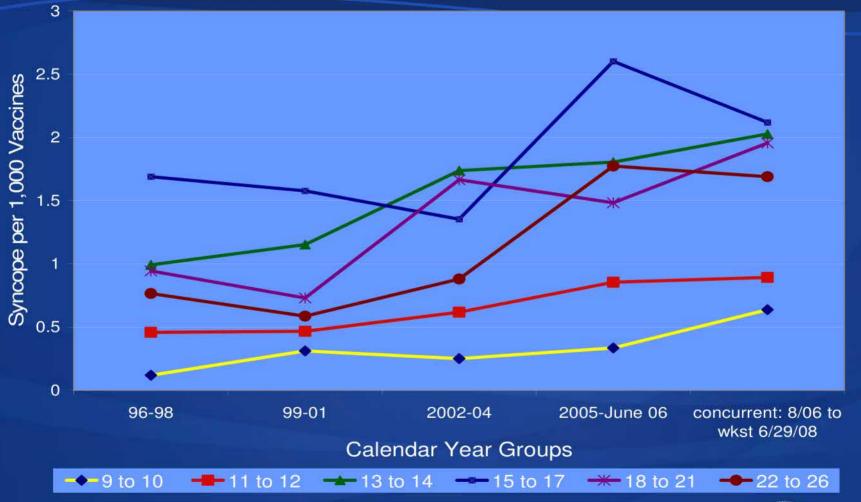
| | Age and Secular Trend Adjustment * | | | | |
|----------|------------------------------------|------------|---------|--|--|
| | RR | 95% CI | p-value | | |
| Youth | 0.99 | 0.80, 1.22 | 0.93 | | |
| Adult | 0.66 | 0.48, 0.91 | 0.01 | | |
| Combined | 0.88 | 0.74, 1.05 | 0.16 | | |





^{*}Age adjusted by 2-3 year groups: 9-10, 11-12, 13-14, 15-17, 18-19, 20-21, 22-23, 24-26

Syncope per 1000 Vaccines Visits Following Td, Tdap, Menactra, and Varicella





Anaphylaxis

- # of events youth in automated data:
 - Exposed: 8
 - Comparison group: 9
- # of events among adults in automated data:
 - Exposed: 7
 - Comparison group: 2
- Chart confirmed number of vaccine-related cases:
 - Youth: 0
 - Adult: 0
- Rate:
 - 0 cases/million doses (95% CI: 0.0 -9.76)
- Background rate:
 - 1.53 cases/million doses (95% CI: 0.04-8.52) *





Additional monitoring

- Weekly monitoring ongoing since July 20, 2008
- Highlighted findings:
 - 1 GBS case identified
 - Preliminary chart review conducted
 - Not a confirmed exposed case
 - Limited power at this time to rule out a true risk of GBS following HPV4
 - Based on a probability of observing 0 cases per 420,000 doses, we are unable to rule out a RR of less than 5



Major Findings and Next Steps

- With >375,000 doses administered, VSD active surveillance did not find statistically significant risk for any of the pre-specified adverse events after vaccination for either age group
- No major increase in rate of anaphylaxis following HPV4 as compared to previous studies
- Continue to monitor outcomes until reach upper limits for adverse events or until reach dose limit
- Continue to monitor rare adverse events
 - GBS, VTE, stroke



Acknowledgements

- Eric Weintraub, MPH
- James Baggs, PhD
- Tracy Lieu, MD
- Ned Lewis, MPH
- Bruce Fireman, MA
- Martin Kulldorff, PhD
- Data Coordinating Center at Harvard Pilgrim
- VSD Project



Disclosure

 VSD principal investigators for this study wish to disclose they have no financial interests or other relationships with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters



| From: | Peggy Rennels |
|--|---|
| Sent: | Fri, 1 Jul 2011 11:47:30 -0500 |
| To: | Pickering, Larry (CDC/OID/NCIRD); Wharton, Melinda (CDC/OID/NCIRD); michael |
| brady(b)(6) | Kroger, Andrew (CDC/OID/NCIRD);Bell, Beth |
| (CDC/OID/NCEZID);Brid | ges, Carolyn (CDC/OID/NCIRD); Whitney, Cynthia (CDC/OID/NCIRD); Destefano, |
| | O);Goeff evans (gevans@HRSA.gov);Wallace, Gregory (CDC/OID/NCIRD);Ortega- |
| | DID/NCIRD);Seward, Jane (CDC/OID/NCIRD);Santoli, Jeanne |
| - A | g, Jennifer L. (CDC/OID/NCIRD);Bresee, Joseph (CDC/OID/NCIRD);Iskander, John |
| (CDC/OD/OADS);jon ter | |
| | witz, Lauri (CDC/OID/NCIRD);Grohskopf, Lisa A. (CDC/OID/NCIRD);Cortese, |
| | (IRD);martin meltzer (QZMA4@cdc.gov);Cox, Nancy (CDC/OID/NCIRD) |
| A STATE OF THE STA | DC/OID/NCIRD);roger suchyta (b)(6) roger suchyta |
| | rah landry (landrys@niaid.nih.gov);Uyeki, Timothy M. (CDC/OID/NCIRD);Clark, |
| | H/NCCDPHP);Murphy, Trudy (CDC/OID/NCHHSTP) (CTR);Parashar, Umesh |
| (CDC/OID/NCIRD) | Followers I F Anni Lorent Description I All Colored Description |
| Cc: | Leonard Friedland;Leonard Silverstein |
| Subject: | New CDC liasons |
| | |
| 8 | |
| Dear All: | |
| I have decided to leave time for me to move or | GSK. It have been an interesting and educational experience, but it is simply in. |
| ACIP, and COID. If you | Clinical and Medical Affairs will assume the role of primary GSK contact with CDC, are unable to contact Dr. Friedland, reach out to Leonard Silverstein, Head of will find them both knowledgeable and helpful. Their e-mails are above. |
| | |
| i nave enjoyed working | with all of you and will sorely miss our interactions. |
| | |
| Margaret P. Pennels M | I P |
| Margaret B. Rennels, M Executive Director | |
| U.S. Vaccine Scientific P | tolicy |
| O.S. Vaccine Scientific P | Only |
| | |
| (b)(6) | |
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From: Sylvester, Gregg C

 Sent:
 Mon, 4 Jun 2012 13:52:14 +0000

 To:
 Vellozzi, Claudia (CDC/OID/NCEZID)

Cc: Destefano, Frank (CDC/OID/NCEZID); Slavin, Dorothy

Subject: RE: Pfizer (PCV13) Safety

Claudia:

I hope you are doing well. I'm just checking in with you because, I will be traveling for most of the month of June. No worries, I have copied Dorrie Slavin on this e-mail. She is a medical colleague of mine and can be your contact person when you (CDC) are prepared to share the data with us (Pfizer). Dorrie has taken the lead on drafting our response back to the FDA, so she is intimately involved in the issue.

You have her e-mail address (up above) and her office phone is (b)(6). Please don't hesitate to call her.

It is our hope that we can pull a few of our medical folks together to hear your findings.

Thanks again, Gregg

Gregg C. Sylvester, MD, MPH Medical Lead for Prevenar & Prevenar 13 Pediatric Vaccines Medicines Development Group Pfizer Inc.

From: Vellozzi, Claudia (CDC/OID/NCEZID) [mailto:bno1@cdc.gov]

Sent: Wednesday, May 16, 2012 9:34 AM

To: Sylvester, Gregg C

Cc: Destefano, Frank (CDC/OID/NCEZID) **Subject:** RE: Pfizer (PCV13) Safety

Gregg

The analysis should be completed the first week of June and I suspect we will be sharing with a variety folks shortly after, including you.

Claudia Vellozzi, MD, MPH 404-639-6175 404-944-2737

From: Sylvester, Gregg C [mailto:Gregg.C.Sylvester@pfizer.com]

Sent: Tuesday, May 15, 2012 5:58 PM **To:** Vellozzi, Claudia (CDC/OID/NCEZID) **Subject:** RE: Pfizer (PCV13) Safety

Claudia:

How are you? Have you finished that wonderful Spring that Atlanta is famous for? Has Summer started? ;-)

I was wondering if your team (internal/external) has finished the VSD study on KD after PCV13 vaccination?

If so......would you share the results with us (Pfizer)? If not.....do you know when it might be finished?

Thanks, Gregg

Gregg C. Sylvester, MD, MPH Global Medical Lead for Prevenar & Prevenar 13 Pediatric Vaccines Medicines Development Group Pfizer Inc.

From: Vellozzi, Claudia (CDC/OID/NCEZID) [mailto:bno1@cdc.gov]

Sent: Wednesday, April 18, 2012 6:23 PM

To: Sylvester, Gregg C

Cc: Destefano, Frank (CDC/OID/NCEZID); Shimabukuro, Tom (CDC/OID/NCEZID)

Subject: RE: Pfizer (PCV13) Safety

That shouldn't be problem

Claudia

From: Sylvester, Gregg C (b)(6)

Sent: Wednesday, April 18, 2012 5:41 PM **To:** Vellozzi, Claudia (CDC/OID/NCEZID)

Cc: Destefano, Frank (CDC/OID/NCEZID); Shimabukuro, Tom (CDC/OID/NCEZID)

Subject: RE: Pfizer (PCV13) Safety

Claudia:

Thank you for updating me. I think that seems like a fair and prudent approach. We are reviewing all of our internal data also.

Would it be possible for your team to share the results with us (Pfizer) when you complete your analysis?

Thanks again, Gregg

From: Vellozzi, Claudia (CDC/OID/NCEZID) [mailto:bno1@cdc.qov]

Sent: Wednesday, April 18, 2012 8:30 AM

To: Sylvester, Gregg C

Cc: Destefano, Frank (CDC/OID/NCEZID); Shimabukuro, Tom (CDC/OID/NCEZID)

Subject: RE: Pfizer (PCV13) Safety

Hi Gregg,

I just wanted you to know that I did discuss this with our counterparts at the FDA (so not Holly below) and they will share our update regarding the timeline for a final analysis for Kawasaki with Holly's group. I hope this helps.

Thanks, Claudia

From: Sylvester, Gregg C (b)(6)

Sent: Wednesday, April 11, 2012 9:59 AM

| Claudia & Tom: Holly Wieland (b)(6) don't hesitate to tell he | is the person that we had spoken to at CBER within the FDA. Please r that you have spoken with us. (b)(4) |
|---|---|
| NAME OF TAXABLE PARTY. | |
| | |
| | (b)(4) |
| | |
| | |
| Please let me know if I | can provide you any other further information. |
| Thanks you, | |
| Gregg | |
| Gregg C. Sylvester, MD, MP | |
| Medical Lead for Prevenar Pediatric Vaccines | |
| Medicines Development Gr | oup |
| From: Vellozzi, Claudia Sent: Monday, April 09, To: Shimabukuro, Tom | (CDC/OID/NCEZID) [mailto:bno1@cdc.gov] , 2012 4:25 PM (CDC/OID/NCEZID); Sylvester, Gregg C |
| From: Vellozzi, Claudia Sent: Monday, April 09, To: Shimabukuro, Tom Subject: RE: Pfizer (PC Gregg, Just to clarify—we can g | (CDC/OID/NCEZID) [mailto:bno1@cdc.gov] , 2012 4:25 PM (CDC/OID/NCEZID); Sylvester, Gregg C V13) Safety give the FDA our timeline for final results, etc but we do not provide advice for |
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| From: Vellozzi, Claudia Sent: Monday, April 09, To: Shimabukuro, Tom Subject: RE: Pfizer (PC Gregg, Just to clarify—we can getheir regulatory decision with the FDA. Thanks. Claudia Vellozzi, MD, MDeputy Director, Immuniz 404-639-6175 cell: 404-944-2737 From: Shimabukuro, To | (CDC/OID/NCEZID) [mailto:bno1@cdc.gov] , 2012 4:25 PM (CDC/OID/NCEZID); Sylvester, Gregg C V13) Safety give the FDA our timeline for final results, etc but we do not provide advice for ns. We are happy to discuss our current findings and timeline for final analysis PH ation Safety Office, CDC |
| From: Vellozzi, Claudia Sent: Monday, April 09, To: Shimabukuro, Tom Subject: RE: Pfizer (PC Gregg, Just to clarify—we can getheir regulatory decision with the FDA. Thanks. Claudia Vellozzi, MD, M Deputy Director, Immuniz 404-639-6175 cell: 404-944-2737 From: Shimabukuro, To Sent: Monday, April 09, | (CDC/OID/NCEZID) [mailto:bno1@cdc.gov] , 2012 4:25 PM (CDC/OID/NCEZID); Sylvester, Gregg C V13) Safety give the FDA our timeline for final results, etc but we do not provide advice for ns. We are happy to discuss our current findings and timeline for final analysis PH ation Safety Office, CDC |
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From: Sylvester, Gregg C (b)(6)
Sent: Monday, April 09, 2012 3:00 PM

To: Shimabukuro, Tom (CDC/OID/NCEZID) **Subject:** RE: Pfizer (PCV13) Safety

Tom & Claudia:

Thanks again for speaking with me last week. I understand that it's too soon to sit down and share with us the results from SCKP, however, I do want to accept your offer of talking with the FDA.

(b)(4)

We are reexamining

our internal data and would like to see the results of the VSD (SCKP) prior to further discussion.

I will get you the name of our contact at the FDA. It might very well be the same person you are sharing information with.

Thanks again, Gregg

P.S. I don't have Claudia's e-mail. Can you please forward or discuss with her. Thx

(b)(4)

Gregg C. Sylvester, MD, MPH Medical Lead for Prevenar & Prevenar 13 Pediatric Vaccines Medicines Development Group Pfizer Inc.

From: Shimabukuro, Tom (CDC/OID/NCEZID) [mailto:ayv6@cdc.gov]

Sent: Thursday, April 05, 2012 2:10 PM

To: Sylvester, Gregg C

Subject: RE: Pfizer (PCV13) Safety

Gregg,

I'll set up a call for next week. Maybe Tuesday morning, but we need to get S. California Kaiser on the line, so that may take a little time to organize. Is Tuesday morning good for you?

Tom

From: Sylvester, Gregg C (b)(6)

Sent: Thursday, April 05, 2012 1:52 PM
To: Shimabukuro, Tom (CDC/OID/NCEZID)
Subject: RE: Pfizer (PCV13) Safety

Tom:

Thanks for the information. It seems from my internal discussions that the FDA has a shorter timeframe. I am under the impression that they are looking for something from us sooner. Is it possible to have a preliminary meeting in the next week or two and meet again in a month when the data is final?

Gregg

Gregg C. Sylvester, MD, MPH Medical Lead for Prevenar & Prevenar 13 Pediatric Vaccines Medicines Development Group From: Shimabukuro, Tom (CDC/OID/NCEZID) [mailto:ayv6@cdc.gov]

Sent: Thursday, April 05, 2012 1:44 PM

To: Sylvester, Gregg C

Subject: RE: Pfizer (PCV13) Safety

Gregg,

The VSD evaluation of the association between PCV13 and Kawasaki disease is ongoing, but close to completion and we should have final results either later this month or in May. We can do a briefing for the Pfizer staff to present the final data. Maybe we can tentatively schedule something for early May. Will that work for you? Let me know.

Tom

From: Sylvester, Gregg C(b)(6)

Sent: Thursday, April 05, 2012 9:55 AM
To: Shimabukuro, Tom (CDC/OID/NCEZID)
Subject: RE: Pfizer (PCV13) Safety

Thank you very much.....

Gregg C. Sylvester, MD, MPH Medical Lead for Prevenar & Prevenar 13 Pediatric Vaccines Medicines Development Group Pfizer Inc.

From: Shimabukuro, Tom (CDC/OID/NCEZID) [mailto:ayv6@cdc.gov]

Sent: Thursday, April 05, 2012 9:54 AM

To: Sylvester, Gregg C

Subject: RE: Pfizer (PCV13) Safety

Gregg,

I am aware of the ongoing PCV13 surveillance in VSD, but not familiar with the details for Kawasaki. Let me check with the VSD team and get back to you on that.

Tom

From: Sylvester, Gregg C(b)(6)

Sent: Thursday, April 05, 2012 7:54 AM **To:** Shimabukuro, Tom (CDC/OID/NCEZID) **Subject:** RE: Pfizer (PCV13) Safety

Tom:

Thank you for the follow up. I will share this analysis with my colleagues here.

(b)(4)

(b)(4) Can you direct me to the right person to discuss this matter?

Gregg

Gregg C. Sylvester, MD, MPH Medical Lead for Prevenar & Prevenar 13 Pediatric Vaccines Medicines Development Group Pfizer Inc.

From: Shimabukuro, Tom (CDC/OID/NCEZID) [mailto:ayv6@cdc.gov]

Sent: Wednesday, April 04, 2012 4:43 PM

To: Sylvester, Gregg C

Subject: RE: Pfizer (PCV13) Safety

Gregg,

Attached is the final VSD analysis of the 2010-11 febrile seizure signal. This really summarizes the data that was presented to ACIP and CDC leadership and was the basis for our public communications on febrile seizure risk and the determining factor for not recommending any changes in the schedule. It is the same data that was presented to Pfizer and Sanofi back in the fall of 2011, so I think you have seen the relevant data.

We have been monitoring for seizures for this influenza season in VSD, but not with the same intensity as last season because TIV didn't change from 2010-11 and recommendations didn't change and we already consider the signal to be assessed and quantified. The findings for this influenza season are consistent with what we saw in 2010-11 and this is not unexpected. This information was communicated to ACIP at the last meeting.

Let me know if you still want to discuss this. Thanks.

Tom

Tom Shimabukuro, MD, MPH, MBA

CDR, U.S. Public Health Service Senior Medical Officer Immunization Safety Office Centers for Disease Control and Prevention (CDC) 1600 Clifton Road, MS D-26, Atlanta, GA 30333

Phone: 404-639-4848 Fax: 404-639-8834

Email: TShimabukuro@cdc.gov

From: Sylvester, Gregg C [mailto:Gregg.C.Sylvester@pfizer.com]

Sent: Wednesday, April 04, 2012 11:22 AM **To:** Shimabukuro, Tom (CDC/OID/NCEZID)

Subject: Pfizer (PCV13) Safety

Tom:

| IV/PCV13 and f | ebrile seizures. |
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| | (b)(4) red with us. |

From: Guillermo Herrera Taracena

Sent: Wed, 24 Aug 2011 11:43:07 -0500

To: Destefano, Frank (CDC/OID/NCEZID)

Subject: VSD related guastian

Subject: VSD related question

Dear Frank,

I hope this email finds you well. As you have surely heard, narcolepsy is an issue hot in the news for GSK. Global Epidemiology in Brussels is exploring possibilities for a study looking into narcolepsy seasonal trends in the US and I was asked to look into the VSD. As we worked in the past with VSD, I decided to first seek for your opinion and depart from there. The Influenza Group at GSK will be visiting the CDC on September 22nd and this could be an opportunity to further explore any alternatives there could be. Let me know and if you prefer, we can talk on the phone at a date and time that is of your convenience.

All the best,

Guillermo Herrera Taracena, MD, MBA GlaxoSmithKline Medical Affairs Director Influenza Vaccines

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| Sent: | Fri, 4 Feb 2011 10:09:47 -0600 |
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| To: | Destefano, Frank (CDC/OID/NCEZID) |
| Subject: | ACIP Safety Office Update |
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| Dear Frank: | |
| | (b)(5) |
| Is there any informat | tion that you want/need from GSK for the ACIP session $(5)(5)$ |
| F PARAMETERS OF BUILDING | |
| Kind regards, | |
| Peggy | |
| Margaret B. Rennels | MD |
| Executive Director | , IVI.D. |
| U.S. Vaccine Scientifi | ic Policy |
| o.o. vaccine ocientin | e i oney |
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Peggy Rennels

From:

| From: Sent: To: Subject: Attachments: | (b)(6) Fri, 28 Jan 2011 08:11:24 -0500 Destefano, Frank (CDC/OID/NCEZID) FW: BioSIG Meeting Minutes - 26Jan2011 ISPE 2010_symposium abstract.doc | | | | |
|---|---|--|--|--|--|
| Dear Frank, | | | | | |
| I hope you are doing well. Is there someone in VSD team who would be willing to put together a symposium for vaccines in upcoming ICPE 2011? Please, see some ideas below in e-mail exchange. | | | | | |
| Best regards, Alena | | | | | |
| Hello Everyone, | | | | | |
| The February 16th absorbed weekly to complete our | tract deadline is quickly approaching and until then we will be meeting | | | | |
| (b)(4) | | | | | |
| a suggestion, please su | rom everyone with ideas/topics for a workshop or symposium. If you have ubmit suggestions to me with a statement on the topic and a few bullets and areas to address. I will send out a list of topics before the meeting | | | | |
| Thanks and speak with | you soon, | | | | |
| Neal Grabowski | | | | | |
| (b)(6) | | | | | |
| From: Wise, Robert [m Sent: Thursday, Janua To: Khromava, Alena (s (b)(6) Cc: rchen@cdc.gov; (b) | sanofi pasteur); (b)(6) | | | | |
| |)(6) | | | | |

Subject: RE: BioSIG Meeting Minutes - 26Jan2011

I'm sorry that I can't volunteer to help with this abstract idea.

CDC employed lot identifiers (aka "numbers") to classify VSD vaccinations by thimerosal -- lots produced before vs. after removal of thimerosal. That experience might be appropriate for this abstract.

| From: (b)(6) | |
|---|-------|
| Sent: Wednesday, January 26, 2011 2:49 PM | |
| To: (b)(6) | |
| Cc: rchen@cdc.gov; (b)(6) | Wise, |
| Robert | |
| Subject: RE: BioSIG Meeting Minutes - 26Jan2011 | |

Dear Neal and Joanna,

Thank you for organizing a teleconference today to discuss on preparations towards symposium submission on topic (b)(4). As I indicated on the call SP does not have an extensive experience of identifying our product using lot numbers in large population databases. I am copying my colleagues from GSK Bio and Merck, as well Bob Wise and Bob Chen to see if they would be willing to step in to prepare an abstract for the symposium.

Unfortunately, in the next two weeks I have a very busy schedule and will be out of the office next Wednesday and not able to attend the next group's meeting.

Kind regards, Alena

From: Grabowski, Neal (b)(6)

Sent: Wednesday, January 26, 2011 1:11 PM

To: Khromava, Alena (sanofi pasteur); Anders Sundstrom; Bert Leufkens; Bob Chen; Bob Wise; Carlos Grijalva; Dianlin Guo; Douglas Watson; Earl Goehring; Erica Velthuis; Giezen, T.J.; Grabowski, Neal; Gumieniak, Olga; Haas, Joanna; Hans Petri; Hui Zhang; Jane Porter; Jeff Curtis; Judith Jones; Jyotsna Mehta (h); Marie-Josee Martel; Marlene Hoynck van Papendrecht M.Sc., M.D., Ph.D.; Meg Richards; Melanie Harrison; Michael Taylor; Beigeaud, Myriam (sanofi pasteur); Nils Feltelius; Pavel Napalkov; Peter Aquino; Priscilla Velentgas; Quazi Ataher; Rizwan Ahmad; Sabine Straus; Sean Zhao; Stephen Motsko; Stephen Paul Motsko; TORBJORN CALLREUS; Wei Dong; Wenjun Jiang; Will Dixon; Will Dixon (alt); Xuehua Ke; Zhiping Huang

Cc: Haas, Joanna

Subject: BioSIG Meeting Minutes - 26Jan2011

Hello Everyone,

Thank you to those who were able to join us on this morning's teleconference – there was a lot of great discussion and progress made toward our symposium and workshop submissions for ICPE 2011.

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| As always, we welcome anyone who would like to contribute to the abstracts and both Joanna and I are available to help in any way we can. |
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I will schedule a call next Wednesday with WebEx to review the draft submissions.

Thanks, Neal

Neal Grabowski

Associate
Global Patient Safety and Risk Management
Genzyme Corporation
675 West Kendall St.
Cambridge, MA 02142

(b)(6)

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