Luca Meroni
III Divisione Malattie Infettive
ASST FBF SACCO

POPOLAZIONI A RISCHIO

Piano Nazionale Prevenzione Vaccinale
PNPV 2017-2019

Vaccino anti Morbillo-Parotite-Rosolia

In assenza di accettabili evidenze di immunità verso anche una sola delle tre patologie, si raccomanda la vaccinazione, anche in età adulta

· Immunodepressione con conta dei linfociti CD4≥ 200/mL

Vaccino anti-varicella

· Soggetti destinati a terapia immunosoppressiva

Si raccomanda la vaccinazione di soggetti suscettibili conviventi con persone affette da immunodepressione severa.

La condizione di suscettibilità viene definita in base al dato anamnestico, non necessari test sierologici.

Vaccinazione anti-zoster

· Soggetti destinati a terapia immunosoppressiva

Vaccino anti-influenzale

· Malattie infiammatorie croniche intestinali

Vaccino anti-pneumococcico

· Soggetti in trattamento immunosoppressivo a lungo termine

Vaccino anti-epatite A

Vaccino anti-epatite B

Vaccino anti-meningococco

Vaccinazione anti Haemophilus influenzae tipo b

Table 2 Vaccines recommended in patients with inflammatory bowel disease before and/or during therapy with immunosuppressants and/or biologics.

Vaccines
HBV
Pneumococcal
Influenza[a]
HPV
VZV[b]
Meningococcal
Tetanus/Tdap

Abbreviations: HBV: Hepatitis B Virus; HPV: Human Papilloma Virus; Tdap: Tetanus, Diphtheria, acellular Pertussis; VZV: Varicella-Zoster Virus.

[a] Inactivated vaccine.

[b] Can be given only BEFORE therapy with immunosuppressants and/or biologics, or to patients on short-term corticosteroid therapy (<15 days), low dosages of methotrexate (<0.4 mg/kg body weight per week), azathioprine (<3.0 mg/kg body weight per day), or 6-MP (<1.5 mg/kg/day).

Varicella-zoster-virus vaccination in immunosuppressed children with rheumatic diseases using a pre-vaccination check list

Pediatric Rheumatology 2018

Fabian Speth[1†], Claas H. Hinze[2*†], Susanne Andel[1], Thomas Mertens[3] and Johannes-Peter Haas[1]

Methods: This prospective study included seronegative patients (VZV-IgG ≤200 mIU/ml) and patients who had previously received only a single dose of VZV vaccine. All vaccinees demonstrated clinically inactive PRD. Patients were categorized according to their actual treatment in low-intensity IS (LIIS) and high-intensity IS (HIIS) including biological therapy. The pre-vaccination checklist defined thresholds for the following basic laboratory tests: white blood cell count ≥3000/mm^3, lymphocytes ≥1200/mm^3, serum IgG ≥500 mg/dl, IgM ≥20 mg/dl, tetanus toxoid antibody ≥0.1 IU/ml. In case of HIIS additional specifications included a CD4+ lymphocyte count ≥200/mm^3 and a positive T-cell function (via analyzable positive control of a standard tuberculosis interferon-gamma-release-assay (TB-IGRA) indicating mitogen-induced T cell proliferation). Patients who met the criteria of the pre-vaccination checklist received the first and/or second VZV vaccination. Immunologic response and side effects were monitored.

J Zhang et al. JAMA 2012

Association Between Vaccination for Herpes Zoster and Risk of Herpes Zoster Infection Among Older Patients With Selected Immune-Mediated Diseases

Table 3. Herpes Zoster Incidence Rate for Unvaccinated and After Vaccination[a]

	>42 Days Since Vaccination		Unvaccinated	
	HZ Cases, No.	HZ IR	HZ Cases, No.	HZ IR
Overall	138	6.7 (5.7-7.9)	9960	11.6 (11.4-11.9)
Medications, mutually exclusive groups[b]				
Biologics, regardless of concomitant DMARDs or oral glucocorticoids	14	8.5 (5.1-14.4)	1592	16.0 (15.2-16.8)
Anti-TNF therapies	12	8.5 (4.8-15.0)	1368	15.9 (15.1-16.8)
DMARDs, without biologics but regardless of oral glucocorticoids	25	7.0 (4.7-10.3)	2363	13.6 (13.1-14.2)
Oral glucocorticoids alone	21	10.3 (6.7-15.8)	2080	17.2 (16.5-17.9)

Abbreviation: DMARDs, disease-modifying antirheumatic drugs; HZ, herpes zoster; IR, incidence rate per 1,000 person-years; TNF, tumor necrosis factor.
[a] More than 42 days after vaccination.
[b] Classified using the following hierarchy: biologics with or without nonbiologic DMARDs or oral glucocorticoids; nonbiologic DMARDs with or without oral glucocorticoids; oral glucocorticoids only.

- Oltre 450.000 pazienti > 60 aa (IBD, RA, AS, PsA)
- Follow-up medio 2 anni (2006-2009)
- Oltre 18.000 vaccinazioni per HZ (633 pz in terapia con biologici)
- 551 in terapia con anti-TNF (nessuna manifestazione da VZV)

Dig Dis Sci (2016) 61:2972–2976
DOI 10.1007/s10620-016-4275-2

ORIGINAL ARTICLE

Many Inflammatory Bowel Disease Patients Are Not Immune to Measles or Pertussis

Noa Krugliak Cleveland[1] · Dylan Rodriquez[1] · Alana Wichman[1] · Isabella Pan[1] ·

MEASLES Ab Index	**≤0.8**	**13%**
	0.9-1.1	**3%**
	≥1.2	**84%**
PERTUSSIS Ab IU/ml	**<5**	**60%**
	>5	**40%**

Table 1 Assessment of selective risk factors and measles and pertussis immune status of IBD patients

Group	Mean pertussis titer (IU/mL)	Mean measles titer (AI)
Age (years)		
≥50	7.1 ($n = 30$)	6 ($n = 37$)
<50	3.7 ($n = 66$)	10.5 ($n = 85$)
	($p = 0.03$)	($p \leq 0.0001$)
Disease duration (years)		
≥10	5 ($n = 56$)*	7 ($n = 65$)*
<10	4 ($n = 39$)*	12 ($n = 55$)*
	($p = 0.04$)	($p = 0.04$)
Current therapy		
ISS	8.6 ($n = 61$)	4.4 ($n = 79$)
No ISS	10 ($n = 35$)	5.2 ($n = 43$)
	($p = 0.3$)	($p = 0.08$)

nature publishing group

Safety and Efficacy of Live Measles Vaccine Administered to a Crohn's Disease Patient Receiving Vedolizumab

Alana Wichmann, APN[1],
Noa Krugliak Cleveland, MD[1] and
David T. Rubin, MD, FACG[1]

doi:10.1038/ajg.2016.21

Journal of
TRAVEL MEDICINE

BRIEF COMMUNICATION

Yellow Fever Vaccination of a Primary Vaccinee During Adalimumab Therapy

Esther R. Nash, MD,* Myron Brand, MD,† and Spyridon Chalkias, MD‡

*Industrial Medical Center, Bridgeport Hospital, Bridgeport, CT, USA; †Division of Internal Medicine, Yale University School of Medicine, New Haven, CT, USA; ‡Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA

DOI: 10.1111/jtm.12209

Immunisations in Crohn's disease: Who? Why? What? When?

Research agenda

- Large prospective randomized studies have to be conducted to show the effect of imuno-modulators and anti TNF in the vaccine response rate.
- Prospective randomized studies in IBD patients with Zoster vaccine are necessary .
- Research should focus on the amount of immunosuppression that

should be achieved for contraindicate live vaccines

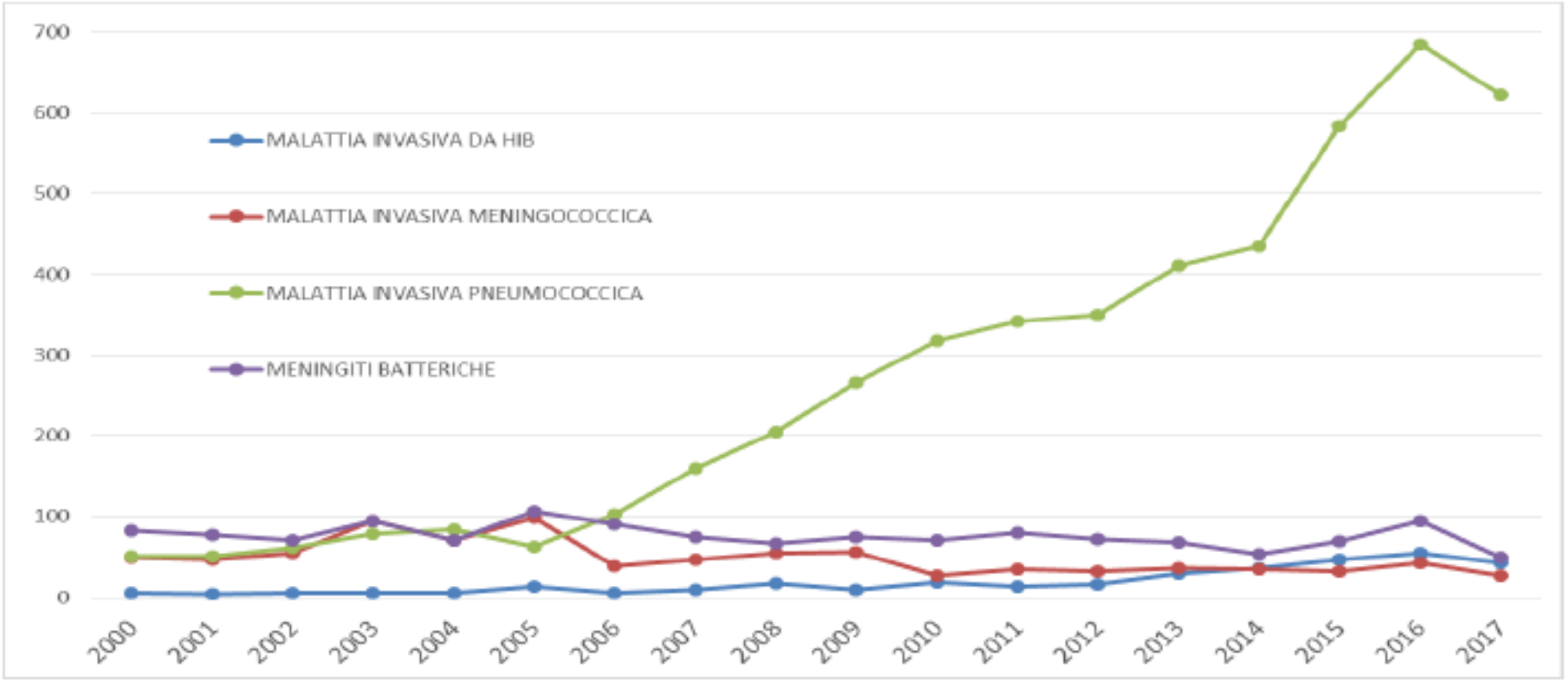
Practice points

- Patients with CD are at increased risk for a variety of vaccine-preventable diseases.
- Inactive vaccines are considered safe but may be less effective in patients under imunomodulators
- Live vaccines are contraindicated in CD patients under imunomodulators therapy.
- Vaccines should be thought and prescribed ideally before immunosuppression to maximize efficacy and avoid contraindications.
- In IBD immunomodulated patients an attenuated vaccine should only be done 3 months after stopping immunomodulation and these drugs should be resumed only after 4 weeks after vaccination.
- Vaccine indications and contraindications in CD treated patients may change with time and knowledge should be up-to-date

Le Malattie Invasive Batteriche in Regione Lombardia

dati 2000-2017

Maggio 2018

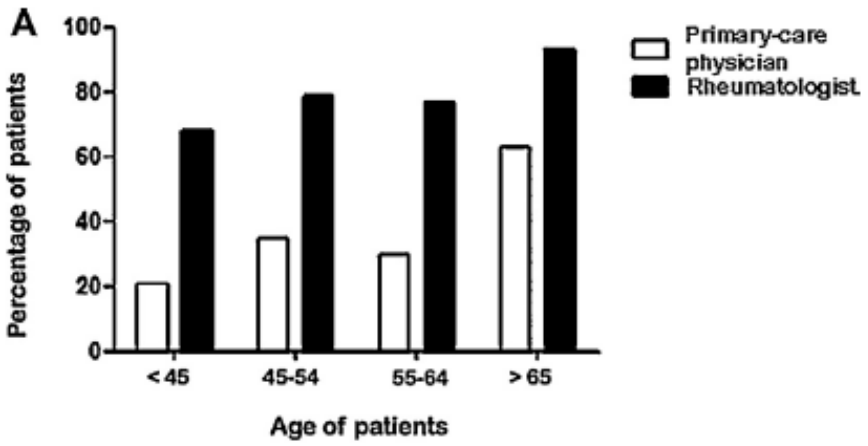


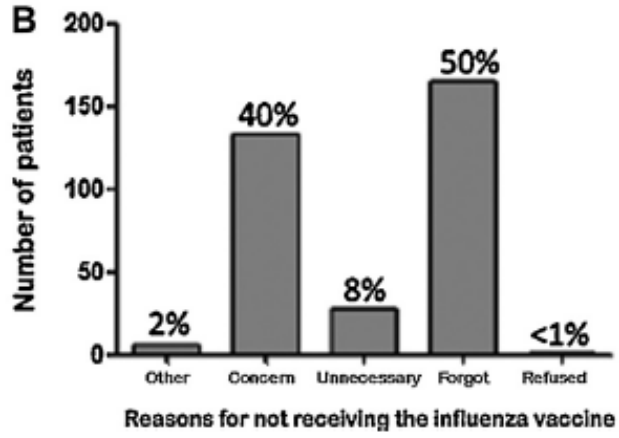
Regione Lombardia

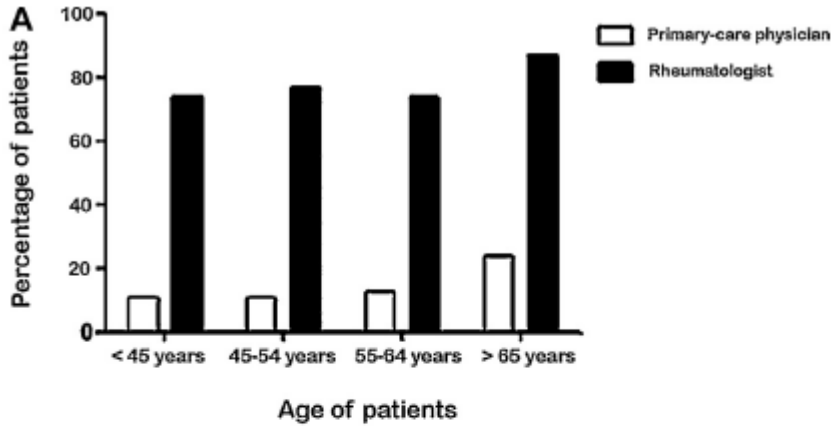
Influenza and pneumococcal vaccine coverage in 584 patients taking biological therapy for chronic inflammatory joint: A retrospective study

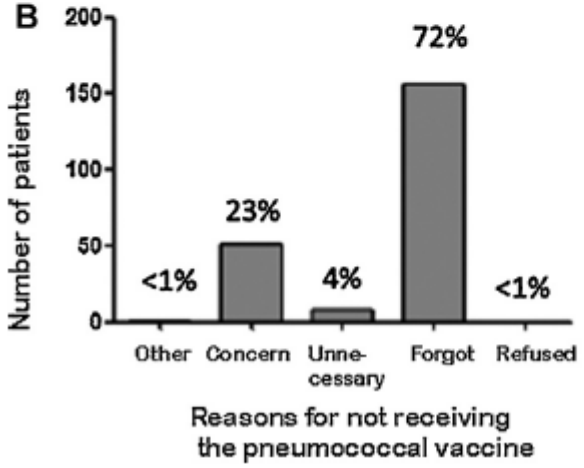
Joint Bone Spine 2016

Olivier Brocq[a,*], Emilie Acquacalda[b], Frédéric Berthier[c], Christine Albert[b], Gilles Bolla[d]









The Journal of Rheumatology

The Journal of Rheumatology Volume 43, no. 6

A Multifaceted Intervention to Improve Influenza, Pneumococcal, and Herpes Zoster Vaccination among Patients with Rheumatoid Arthritis

David W. Baker, Tiffany Brown, Ji Young Lee, Amanda Ozanich, David T. Liss, Diana S. Sandler and Eric M. Ruderman

J Rheumatol 2016:43:1030-1037

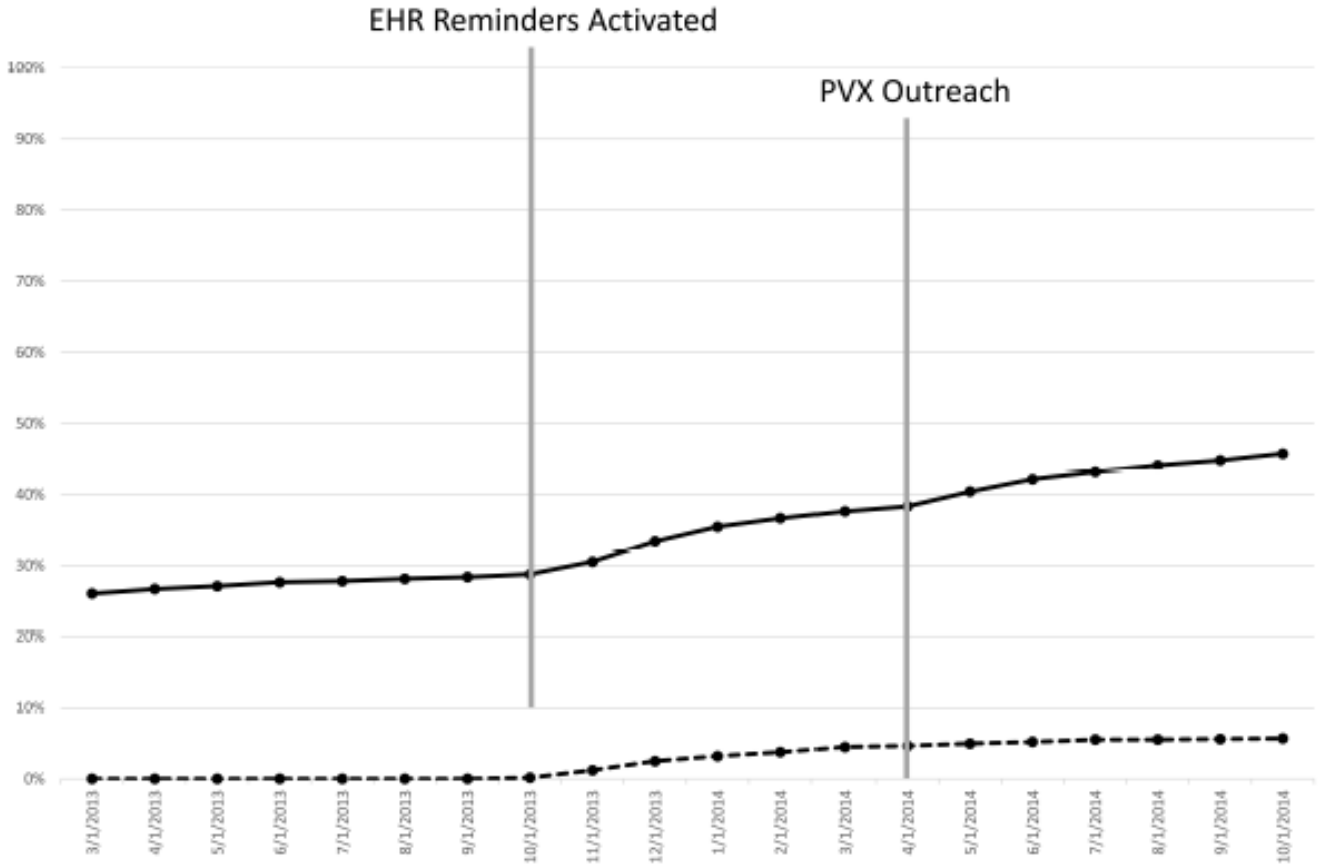
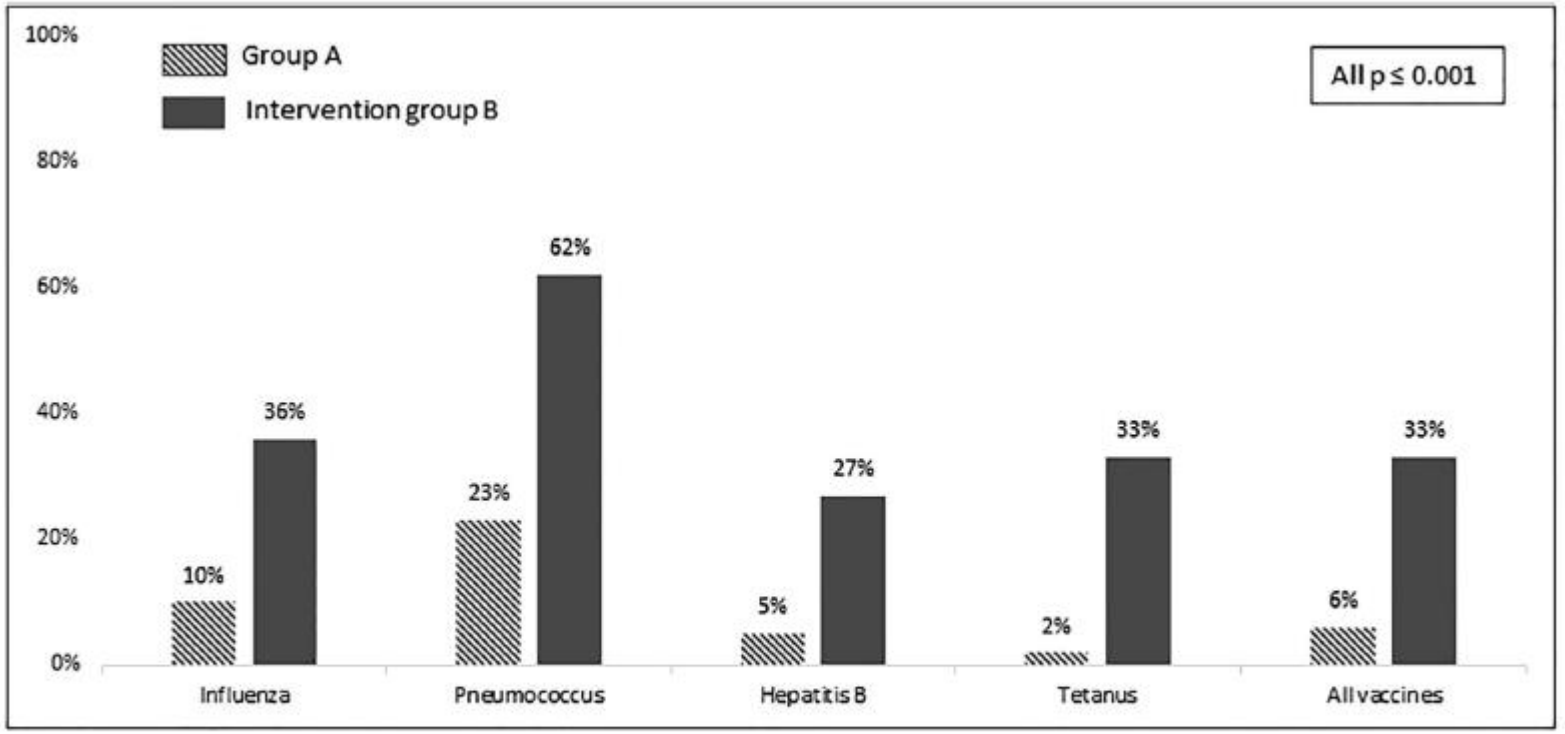


Figure 2. PVX rate (solid line) and documented exception rate (dashed line). EHR: electronic health record; PVX: pneumococcal vaccination.

Effects of Education and Information on Vaccination Behavior in Patients with Inflammatory Bowel Disease

Sofie Coenen, MSc, Ellen Weyts, Cedric Jorissen, Paul De Munter, MD, Maja Noman, MD, Vera Ballet, MSc, Séverine Vermeire, MD, PhD, Gert Van Assche, MD, PhD, Marc Ferrante, MD, PhD

Inflamm Bowel Dis 2017



Group A	n = 5/52	n = 25/107	n = 7/151	n = 1/56	n = 13/206
Intervention group B	n = 18/50	n = 53/86	n = 24/89	n = 11/33	n = 46/140