70es #JPIP

Journées Pharmaceutiques Internationales de Paris

Actualités en infectiologie

Un nouvel élan pour la vaccination

La vaccination, quelles idées reçues ?

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Quelques idées reçues

- Les vaccinations sont inutiles !
- Les vaccinations sont dangereuses!
- Il est inutile de se faire vacciner contre des maladies qui ont disparu du territoire national !
- On vaccine les enfants trop jeunes!
- C'est inefficace, voire dangereux d'administrer plusieurs vaccins simultanément!

Les vaccinations sont inutiles!

La réponse immunitaire induite par la maladie est plus efficace que celle induite par la vaccination.

Attention au respect de la chaine du froid !!!

C’est vrai… Mais !

Au cœur de l'épidémie de rougeole (2008-2012)

> 24 000 cas de rougeole

- > 1 000 cas de pneumopathies graves
- 30 complications neurologiques (encéphalite, myélite).
- 10 décès par pneumopathie, myocardite et encéphalite.

Trois décès en 2018

Source : Santé publique France

Et si on arrêtait de se vacciner !

1970

Couverture vaccinale:
80 % chez les nourrissons
370 cas
0 décès

Coqueluche

1975

Suspicion d'effets secondaires graves
Suspension de la vaccination
Recherche de vaccins plus sûrs

1979

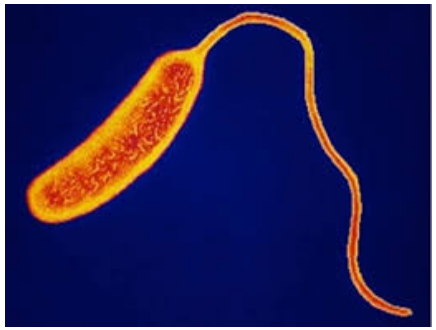
Couverture vaccinale: 10 % chez les nourrissons
> 13 000 cas
41 décès

Les vaccinations sont inutiles!!!

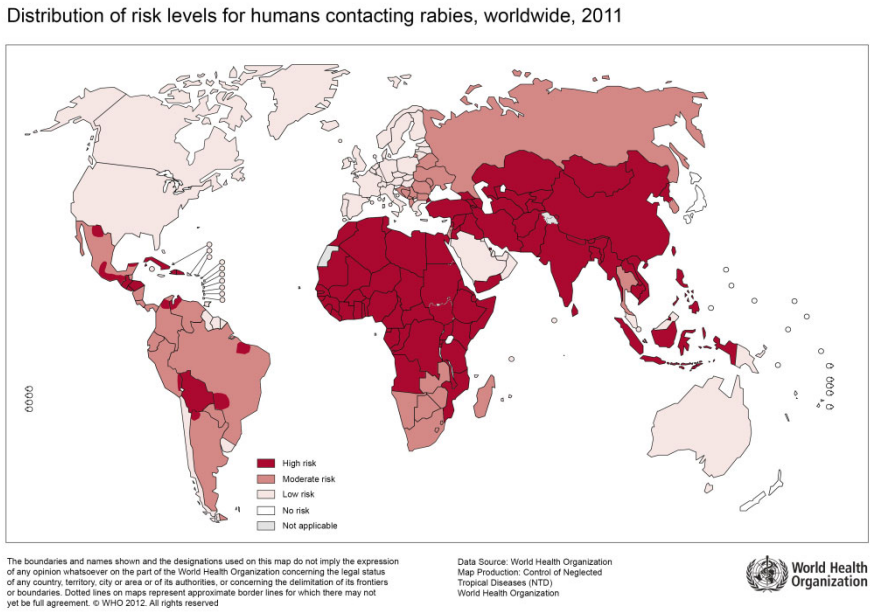
Ce n’est pas la vaccination qui est responsable de la diminution des maladies infectieuses, mais l’amélioration de l’hygiène, l’assainissement, la qualité de l’eau, la nutrition!

Oui et non !

C’est vrai pour le choléra !



C’est faux pour la rage



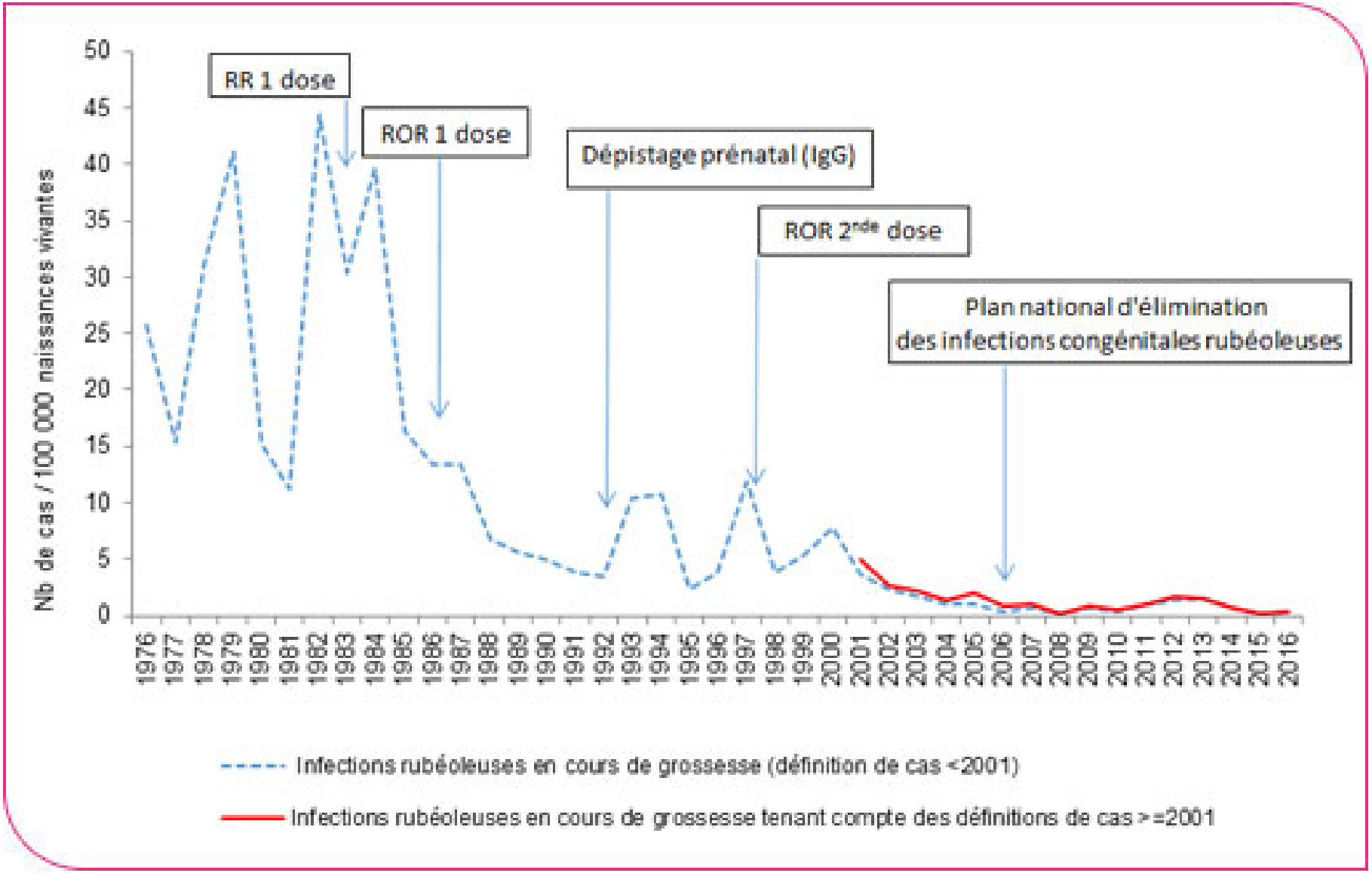
La France est officiellement indemne de rage depuis 2001

Les cas de rage en France proviennent tous d’animaux contaminés à l’étranger

Pourquoi ?

- Vaccination orale des renards par des appâts et vaccination des animaux domestiques
- Vaccination préconisée pour certaines catégories professionnelles

Grâce à la vaccination: élimination de la rubéole



Les vaccinations sont dangereuses!

Contre-indications ? OUI

- Réactions allergiques à l'un des composants du vaccin
- Grossesse et immunodépression sévère (pour les vaccins vivants atténués)

Effets indésirables ? OUI

- Réactions locales (douleurs, érythème …)
- Réactions générales (fièvre, myalgies, arthralgies, voire Guillain-Barré…)

Effets indésirables graves ? Aucune preuve

- Autisme et ROR (fausse rumeur !)
- Maladies auto-immunes, myofasciite à macrophages …

L’affaire Wakefield !

le « faux lien » entre l’autisme et le vaccin ROR

Early report

Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

A J Wakefield, S H Murch, A Anthony, J Linnell, D M Casson, M Malik, M Berelowitz, A P Dhillon, M A Thomson, P Harvey, A Valentine, S E Davies, J A Walker-Smith

THE LANCET • Vol 351 • February 28, 1998

L'étude

Autisme

ROR

Temps entre ROR et symptômes

Âge Premiers symptômes

				Features associated with exposure	Age	
			first		Behaviour	Bowel
1	Autism	MMR	1 week	Fever/delirium	12 months	Not known
2	Autism	MMR	2 weeks	Self injury	13 months	20 months
3	Autism	MMR	48 h	Rash and fever	14 months	Not known
4	Autism? Disintegrative disorder?	MMR	Measles vaccine at 15 months followed by slowing in development. Dramatic deterioration in behaviour immediately after MMR at 4·5 years	Repetitive behaviour, self injury, loss of self-help	4·5 years	18 months
5	Autism	None—MMR at 16 months	Self-injurious behaviour started at 18 months		4 years	
6	Autism	MMR	1 week	Rash & convulsion; gaze avoidance & self injury	15 months	18 months
7	Autism	MMR	24 h	Convulsion, gaze avoidance	21 months	2 years
8	Post-vaccinial encephalitis?	MMR	2 weeks	Fever, convulsion, rash & diarrhoea	19 months	19 months
9	Autistic spectrum disorder	Recurrent otitis media	1 week (MMR 2 months previously)	Disinterest; lack of play	18 mont	ars
10	Post-viral encephalitis?	Measles (previously vaccinated with MMR)	24 h	Fever, rash & vomiting	15 ths	Not kn
11	Autism	MMR	1 week	Recurrent "viral pneumonia" for 8 weeks following MMR	15 mo	Not know
12	Autism	None—MMR at 15 months	Loss of speech development and deterioration in language skills noted at 16 months			Not wn

Quel est le problème ?

Conflits d'intérêt / Problèmes d'éthique

28 janvier 2010, Jugement:
36 manquements au code de déontologie médicale

Article du Lancet (1998): 12 patients avec un « nouveau syndrome » (entérocolite et autisme régressif) associé à une vaccination ROR

En fait

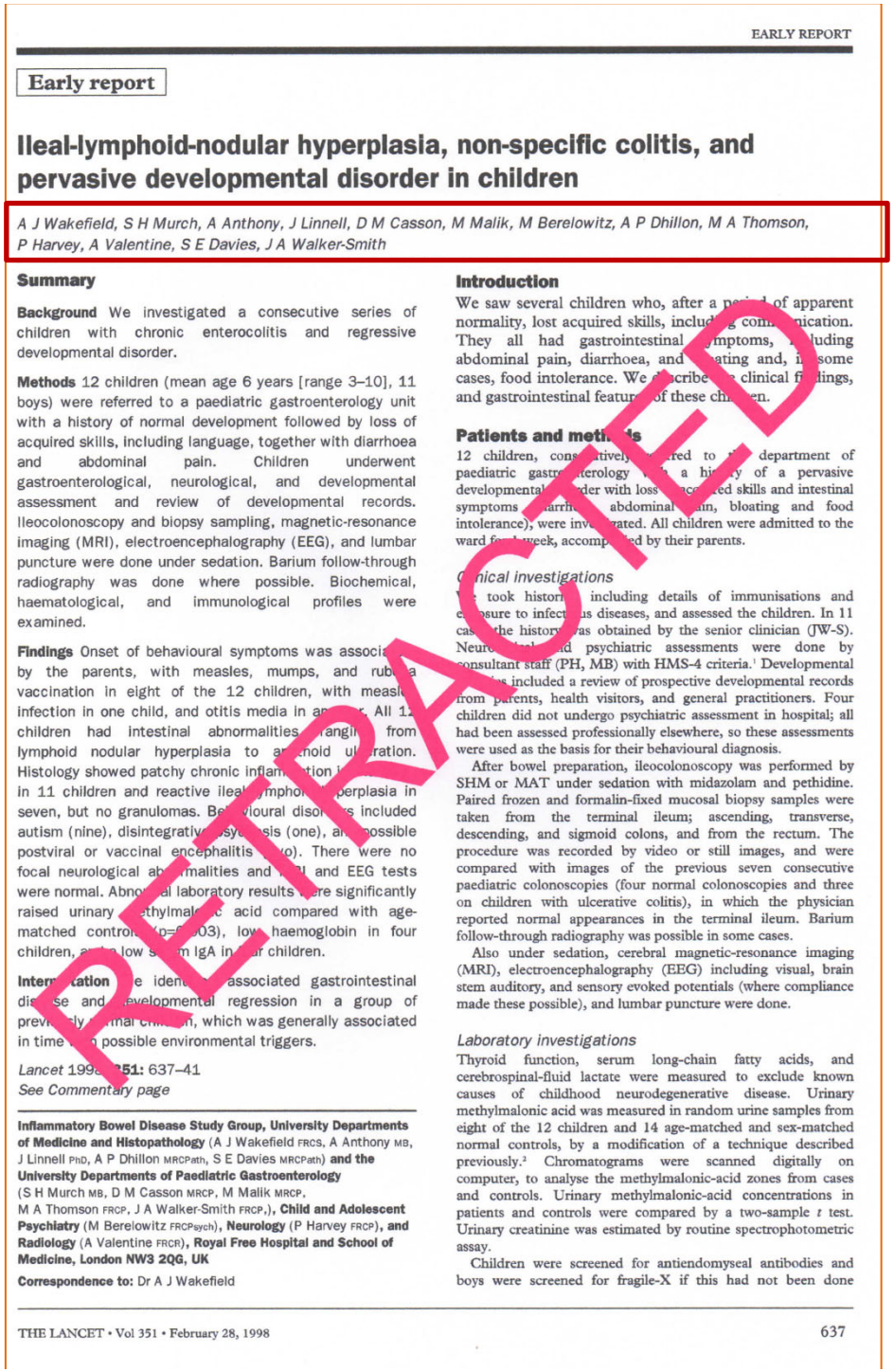
- 3 des 9 enfants avec « autisme régressif » :
  ⟹ un seul avec un diagnostic d'autisme régressif

- 12 enfants « précédemment normaux »:
  ⟹ 5 avec des problèmes de développement antérieurs au ROR

- Quelques enfants avec des problèmes comportementaux quelques jours après le ROR:
  ⟹ données: problèmes comportementaux plusieurs mois auparavant

- ……

Deer B. BMJ 2011;342:c5347



Early report

Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

A J Wakefield, S H Murch, A Anthony, J Linnell, D M Casson, M Malik, M Berelowitz, A P Dhillon, M A Thomson, P Harvey, A Valentine, S E Davies, J A Walker-Smith

Summary

Background We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder.

Methods 12 children (mean age 6 years [range 3–10], 11 boys) were referred to a paediatric gastroenterology unit with a history of normal development followed by loss of acquired skills, including language, together with diarrhoea and abdominal pain. Children underwent gastroenterological, neurological, and developmental assessment and review of developmental records. Ileocolonoscopy and biopsy sampling, magnetic-resonance imaging (MRI), electroencephalography (EEG), and lumbar puncture were done under sedation. Barium follow-through radiography was done where possible. Biochemical, haematological, and immunological profiles were examined.

Findings Onset of behavioural symptoms was associ… by the parents, with measles, mumps, and rub… vaccination in eight of the 12 children, with measl… infection in one child, and otitis media in an… . All 12… children had intestinal abnormalities rangi… from lymphoid nodular hyperplasia to a… noid ul… ration. Histology showed patchy chronic inflam… tion i… in 11 children and reactive ileal lymphoi… perplasia in seven, but no granulomas. Be… vioural disor… s included autism (nine), disintegrativ… sychosis (one), a… possible postviral or vaccinal encephalitis (one). There were no focal neurological ab… rmalities and … and EEG tests were normal. Abno… al laboratory results … ere significantly raised urinary … ethylmalo… acid compared with age-matched contro… (p=…003), low haemoglobin in four children, a… low s… m IgA in … r children.

Interp… tation … e ident… associated gastrointestinal di… se and … evelopmental regression in a group of previ… ly … mal chi… n, which was generally associated in time … possible environmental triggers.

Lancet 199… **351:** 637–41
See Commentary page

Inflammatory Bowel Disease Study Group, University Departments of Medicine and Histopathology (A J Wakefield FRCS, A Anthony MB, J Linnell PhD, A P Dhillon MRCPath, S E Davies MRCPath) **and the University Departments of Paediatric Gastroenterology** (S H Murch MB, D M Casson MRCP, M Malik MRCP, M A Thomson FRCP, J A Walker-Smith FRCP,), **Child and Adolescent Psychiatry** (M Berelowitz FRCPsych), **Neurology** (P Harvey FRCP), **and Radiology** (A Valentine FRCR), **Royal Free Hospital and School of Medicine, London NW3 2QG, UK**

Correspondence to: Dr A J Wakefield

Introduction

We saw several children who, after a pe… d of apparent normality, lost acquired skills, includ… g com… nication. They all had gastrointestinal … mptoms, … luding abdominal pain, diarrhoea, and … ating and, i… some cases, food intolerance. We d… cribe… clinical f… dings, and gastrointestinal featur… of these chi… en.

Patients and meth… ds

12 children, cons… tively … red to t… department of paediatric gastr… terology … h a hi… y of a pervasive developmental … der with loss … ac… red skills and intestinal symptoms … arrh… abdominal … in, bloating and food intolerance), were inv… gated. All children were admitted to the ward f… week, accomp… ied by their parents.

Clinical investigations

… took histor… including details of immunisations and e… sure to infect… us diseases, and assessed the children. In 11 ca… the history … as obtained by the senior clinician (JW-S). Neuro… l … d psychiatric assessments were done by consultant staff (PH, MB) with HMS-4 criteria.[1] Developmental … s included a review of prospective developmental records from parents, health visitors, and general practitioners. Four children did not undergo psychiatric assessment in hospital; all had been assessed professionally elsewhere, so these assessments were used as the basis for their behavioural diagnosis.

After bowel preparation, ileocolonoscopy was performed by SHM or MAT under sedation with midazolam and pethidine. Paired frozen and formalin-fixed mucosal biopsy samples were taken from the terminal ileum; ascending, transverse, descending, and sigmoid colons, and from the rectum. The procedure was recorded by video or still images, and were compared with images of the previous seven consecutive paediatric colonoscopies (four normal colonoscopies and three on children with ulcerative colitis), in which the physician reported normal appearances in the terminal ileum. Barium follow-through radiography was possible in some cases.

Also under sedation, cerebral magnetic-resonance imaging (MRI), electroencephalography (EEG) including visual, brain stem auditory, and sensory evoked potentials (where compliance made these possible), and lumbar puncture were done.

Laboratory investigations

Thyroid function, serum long-chain fatty acids, and cerebrospinal-fluid lactate were measured to exclude known causes of childhood neurodegenerative disease. Urinary methylmalonic acid was measured in random urine samples from eight of the 12 children and 14 age-matched and sex-matched normal controls, by a modification of a technique described previously.[2] Chromatograms were scanned digitally on computer, to analyse the methylmalonic-acid zones from cases and controls. Urinary methylmalonic-acid concentrations in patients and controls were compared by a two-sample *t* test. Urinary creatinine was estimated by routine spectrophotometric assay.

Children were screened for antiendomyseal antibodies and boys were screened for fragile-X if this had not been done

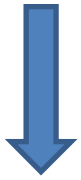
Rétractation
de 10 des 13 auteurs

Article rétracté en février 2010

Following the judgment of the UK General Medical Council's Fitness to Practise Panel on Jan 28, 2010, it has become clear that **several elements of the 1998 paper by Wakefield et al· are incorrect, contrary to the findings of an earlier investigation. In particular, the claims in the original paper that children were "consecutively referred" and that investigations were "approved" by the local ethics committee have been proven to be false**. Therefore we fully retract this paper from the published record.

Les effets indésirables

Est-ce que les vaccins entraînent des EI graves ?



Nécessité de preuves scientifiquement établies

Ne pas confondre temporalité et causalité

Importance
de la pharmacovigilance/des études pharmaco-épidémiologiques

Vaccin HPV
Étude ANSM/Assurance Maladie

Risques de maladies auto-immunes

- **Population:**
  - jeunes filles âgées de 13 à16 ans
  - ≈ 840 000 vaccinées [Gardasil ®, HPV 6,11,16,18 (93 %) ou Cervarix ®, HPV 16,18 (7 %)]
    ≈ 1,4 million non vaccinées

- **Analyse de la fréquence de survenue de maladies auto-immunes**
  (14 types de pathologies)

Sclérose en plaques, syndrome de Guillain-Barré, lupus, sclérodermies, vascularites, polyarthrite rhumatoïde/arthrites juvéniles, myosites, syndrome de Gougerot-Sjögren Maladies chroniques inflammatoires de l'intestin, maladie cœliaque, purpura thrombopénique immunologique, diabète de type 1, thyroïdites, pancréatites

*Vaccins anti-HPV et **risques de maladies auto-immunes**: études pharmaco-épidémiologique*
Rapport final-Septembre 2015

Étude ANSM/Assurance Maladie

Risques de maladies auto-immunes

- **Durée moyenne du suivi**

- Jeunes filles non vaccinées: 25,3 mois
- Jeunes filles vaccinées: 19,8 mois

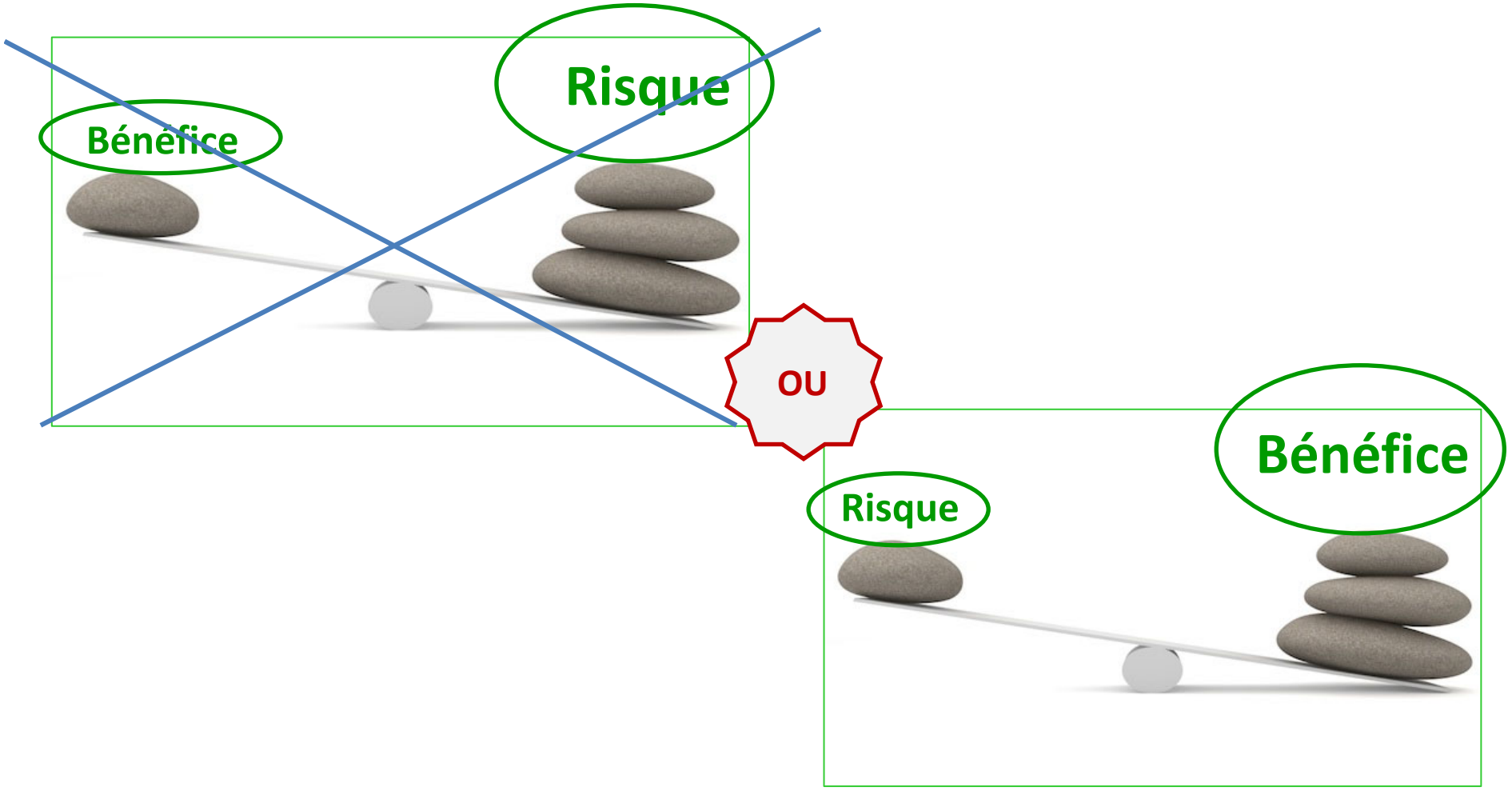
Résultats

1 à 2 cas supplémentaires de syndrome de Guillain-Barré (SGB)

Pour 100 000 jeunes filles vaccinées

*Vaccins anti-HPV et **risques de maladies auto-immunes**: études pharmaco-épidémiologique*
Rapport final-Septembre 2015

Le vaccin est un médicament



Il est inutile de se faire vacciner contre des maladies qui ont disparu du territoire national

Exemple: la poliomyélite

3.9. 3. Quelques questions

“Les poumons d’acier”
Los Angeles, 1952

Source: CDC

37 cas notifiés en 2017

La transmission endémique se poursuit au **Pakistan**, au **Nigéria** et en **Afghanistan**, ce qui pourrait entraîner près de 200 000 nouveaux cas chaque année, dans les 10 ans à venir au niveau mondial.

OMS, mars 2018

On vaccine les enfants trop jeunes!

En raison de la plus grande vulnérabilité des très jeunes enfants aux maladies évitables par la vaccination

C’est inefficace, voire dangereux d’administrer plusieurs vaccins simultanément !

NON

crainte fréquente

surcharge du système immunitaire des nourrissons par la vaccination

Nombre d'antigènes contenus dans les vaccins bien inférieur à celui des molécules antigéniques d'origine microbienne auxquelles les nourrissons sont exposés dès la naissance

Exemple: 30 milliards de bactéries vont coloniser l'intestin (une centaine de molécules antigéniques par bactérie)

Offit PA, Quarles J, Gerber MA, et al. Addressing parents' concerns: do multiple vaccines overwhelm or weaken the infant's immune system? Pediatrics2002;109:124-129.

EBioMedicine. 2015 Jun 23;2(8):891-7. doi: 10.1016/j.ebiom.2015.06.018. eCollection 2015 Aug.

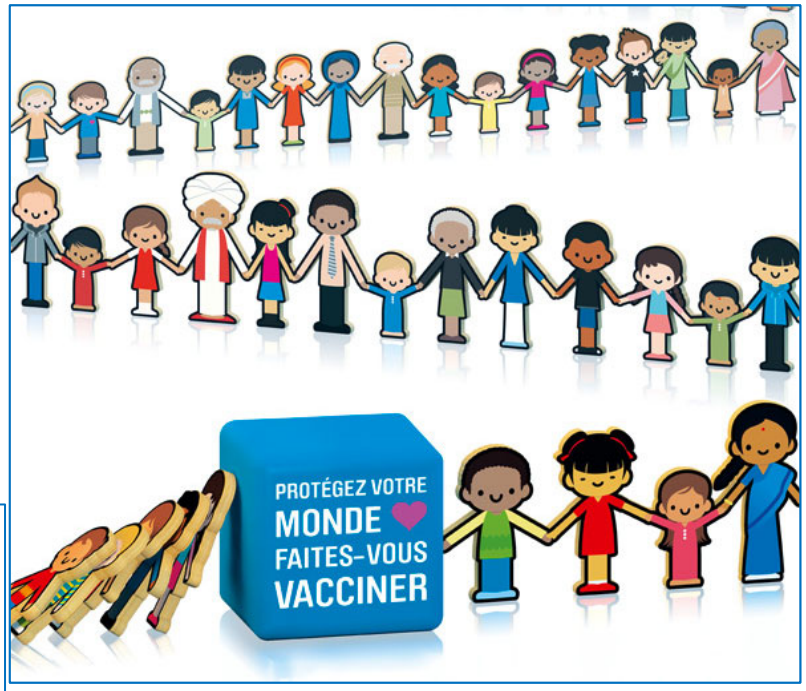
Vaccine Hesitancy Among General Practitioners and Its Determinants During Controversies: A National Cross-sectional Survey in France.

Verger P[1], Fressard L[2], Collange F[2], Gautier A[3], Jestin C[3], Launay O[4], Raude J[5], Pulcini C[6], Peretti-Watel P[2].

Perceptions of vaccines utility (line %)	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Today some vaccines recommended by authorities are not useful[b]	38.3	35.3	20.0	6.4
Children are vaccinated against too many diseases[b]	53.1	26.7	14.6	5.5

Un nouvel élan pour la vaccination

La vaccination :
une priorité
de santé publique



Organisation mondiale de la santé

Merci
de votre attention