

Vaccines: Discerning Facts from Myths

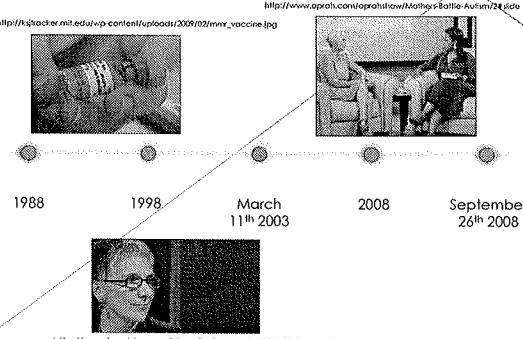
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- ## Objectives
- Discuss controversy surrounded vaccines and autism
 - Discuss articles that contribute/refute the claim the link between autism and vaccines
 - Discuss who should be receiving Gardasil
 - Explain the controversy surrounding Gardasil
 - Discuss potential counseling points regarding vaccination for patients

Autism and MMR

<http://www.aprah.com/oprahshow/Matthys-Ballo-Autism/24.ppt>

http://k12oacker.mit.edu/wp-content/uploads/2009/02/mmr_vaccine.jpg



The timeline shows key events in the MMR and Autism controversy:

- 1988: MMR vaccine introduced.
- 1998: Andrew Wakefield's paper published.
- March 11th 2003: MMR withdrawn from the UK.
- 2008: MMR reintroduced.
- September 26th 2008: MMR reintroduced to the US.

http://newsline.bbc.co.uk/1/health/080926/080926_mmr_misinfo_philips_atip

MMR

- MMR
 - > Measles, Mumps and Rubella
- CDC recommendations
 - > Children should get 2 doses of MMR vaccine:
 - 12-15 months of age
 - 4-6 years of age
- Manufacturer
 - > Merck
 - MMR-II
 - Thimerosal-preservative free

1998: The Spark

- Wakefield et al (1998)
 - > Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children
- 12 children with "autistic enterocolitis"
 - > Developmentally delayed
 - > Collection of bowel symptoms
- 8 children
 - > Linked onset of symptoms with MMR vaccine

2003: Fanning the Flames

- Melanie Phillips: The UK Daily Mail
 - > The MMR controversy: an investigation
- 3 part article
 - > Chronicling Wakefield research
 - > Citing parents who had "normal" children until they received MMR vaccine
- Sparked panic in UK
 - > Many families stopped vaccinating their Children

2008 and Beyond: The Celebrity Problem

- Oprah, Jenny McCarthy and Jim Carrey
 - > 1 hour on the couch promoting Mother Warriors
 - > Claims her son was fine until received MMR vaccine
 - Never giving another vaccine
- Oprah Effect

What the data tells us

- Cochrane Review
 - > 2004 and updated in 2008
 - > Reviewed over 50 articles
- Outcome
 - > No correlation between MMR and autism
 - > Increase in cases
 - Increased awareness
 - Widening of diagnostic categories

What to tell your patients

- No scientific evidence linking mercury-containing thimerosal-preserved vaccines with autism
- Herd Immunity
 - > Not necessarily a guarantee
- Weigh risk versus benefits
 - > Measles
 - 500,000 deaths/year
 - > Mumps
 - Outbreaks requiring hospitalization becoming more common

HPV Vaccines

HPV

- Cervarix
 - > Bivalent (Types 16 and 18)
 - > Approved in 2009
 - Use in females 10 through 25 years of age 009
 - > Not FDA approved for males
- Gardasil
 - > Quadrivalent (Types 6, 11, 16, and 18)
 - > 10/2009
 - Indicated in boys and men 9 through 26 years of age for the prevention of genital warts caused by HPV Types 6 and 11.

Controversies surrounding HPV

- Giving 11 and 12 year olds implies consent to engage in sexual activity
 - > Preventive
 - > Ensure that all women protected protected
 - > Age based versus Risk based
 - > Better response
 - > Vaccines ≠ Permission to engage in risky behavior
 - > Use as an opportunity

Controversies surrounding HPV

- False sense of protection against STD's and lead to sexual dis-inhibition
 - > Studies have demonstrated
 - HPV is not a deterrent
 - Condom distribution
- Children have too many vaccinations on the immunization calendar
 - > Reduce incidence of preventable disease
 - > Continuity of care
 - > Minimal vaccinations at age 11-12

Controversies surrounding HPV

- Long term side effects of the vaccine are unknown
 - > Short term studies have been shown to be safe
 - > On going data collection occurs much like other vaccines
- Enduring Efficacy is not known
 - > Vaccines are shown to be effective for four to five years
 - > Will need booster
 - Not unlike DTaP
 - > Efficacy may last as long a 12 years

HPV Mandates: What do parents really think?

Parent's Reasons Why the HPV Vaccine Should Not Be Mandatory	
Takes away my rights	57.5
Do not trust the government	4.4
Vaccines do not work	1.7
Vaccines should not be required	7.7
Vaccines are unsafe	4.4
Vaccinate for only epidemic disease	24.3
Vaccine not well studied	33.2
Will promote sex	15.5
HPV not a serious infection	0.6
Child is not at risk for HPV	6.6
Child is not having sex	17.7
Too many adverse effects	29.3
Religious objections	3.9
HPV is sexually transmitted	12.2
Too expensive	6.6
Not unless paid by the government	12.2

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