



Protecting the most vulnerable: children and adults with comorbidities



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Who should be vaccinated?

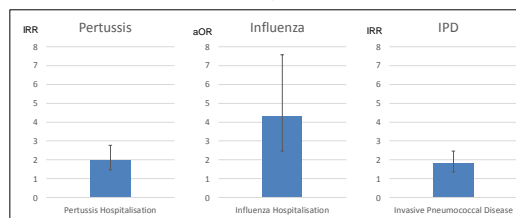
To prevent pneumococcal disease	To prevent influenza	To prevent meningococcal disease
Functional and anatomical asplenia Preterm infant Asplenic adolescent / young adult Elderly patient with cardiorespiratory disease Chronic liver disease Chronic neurological disease Diabetes Mellitus Down Syndrome Preterm birth Excess alcohol consumption Tobacco smoking	Immunocompromising Chronic renal disease Diabetes Mellitus Inherited metabolic disorders Preterm birth Trisomy 21 Obesity Long term aspirin Excess alcohol consumption	Defects in or deficiency of Complement Haematopoietic stem cell transplant

Summary

- Who should be vaccinated?
- Are they being vaccinated?
- Why are they being missed?

Who should be vaccinated?

- Preterm infant: risk of hospitalisation / disease

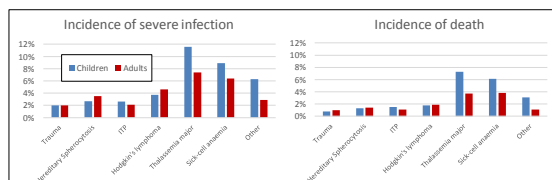


- Increased severity with increasing prematurity

Riese OR et al PIDJ 2017; Gill PJ et al Lancet Resp 2015; Riese OR et al PIDJ 2018;

Who should be vaccinated?

- Asplenia / Hyposplenic adolescent: risk of OPSI
 - Overall incidence of invasive infection: 3.2%
 - Overall incidence of death: 1.4%

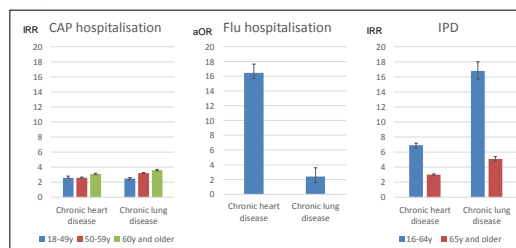


- S. pneumoniae* >> *N. meningitis* > *H. influenza* > other

Bisharat N et al. J Infection 2001

Who should be vaccinated?

- Adults with cardiorespiratory disease: risk of pneumonia, flu and IPD



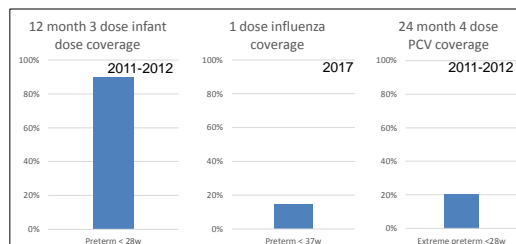
Paton S et al. BMC Infectious Diseases 2015; Metz D et al. BMJ 2013; Van Hoek J et al. J Infection 2012

Are they being vaccinated?

- There remains a paucity of data on vaccine coverage for those with comorbidities

Are they being vaccinated?

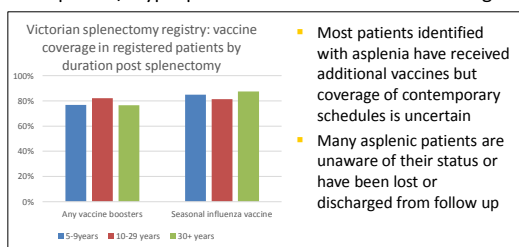
- Preterm infants: pertussis, flu and PCV coverage



Blyth & Cheng unpublished; Giddings & McCallum unpublished.

Are they being vaccinated?

- Asplenia / Hyposplenic adolescent: vaccine coverage

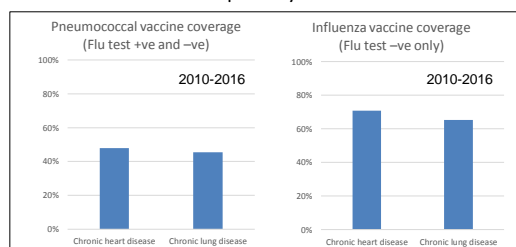


- Most patients identified with asplenia have received additional vaccines but coverage of contemporary schedules is uncertain
- Many asplenic patients are unaware of their status or have been lost or discharged from follow up

Wang J et al MJA 2014

Are they being vaccinated?

- Adults with cardiorespiratory disease



Blyth & Cheng FluCAN, unpublished

Why are they being missed?

Patient factors:	Provider factors:
Practice factors:	Program factors:

Why are they being missed?

Patient factors: <ol style="list-style-type: none"> Limited personal understanding of ones own risk Access to community, workplace or school-based vaccination in those with complex care needs A lack of access to vaccination records 	Provider factors: <ol style="list-style-type: none"> Confusion about what are risk factors Complexity with recommendations Uncertainty about contraindications (especially immunosuppression) Difficulty in determining vaccine Hx Acute management takes precedence over prevention
Practice factors: <ol style="list-style-type: none"> Confusion about responsibility: hospital or general practice? Different approaches by different subspecialist and subspecialist practices Competing priorities 	Program factors: <ol style="list-style-type: none"> Limited funding options for non-NIP vaccines Programs are developed by vaccines, not risk groups and therefore don't align well