

# Changing Provincial Regulations: The Newborn Eye Prophylaxis Story

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**Healthy Mothers and Healthy Babies Conference**

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# Objectives

1. Review the history and practice of mandatory eye prophylaxis in BC.
2. Examine the steps taken to lead the change process.
3. Discuss the go-forward plan in the journey towards rescinding mandatory eye prophylaxis.

# Why Review the Practice Now?



- The Canadian Pediatrics Society (CPS) released a position statement in March 2015 recommending:

*“Pediatricians and other physicians caring for newborns should advocate to rescind ocular prophylaxis regulations in jurisdictions in which this is still legally mandated”.*

# What is Ophthalmia Neonatorum?

- Ophthalmia Neonatorum (ON), also known as neonatal conjunctivitis is an acute, mucopurulent infection that occurs within the first month of life.
- ON affects 1.6 – 12% of all newborns.

# What is Ophthalmia Neonatorum?

- ON is caused by one or more of the following processes:
  - Chemical
  - Bacterial
    - ❖ Sexually transmitted infections
    - ❖ Non-sexually transmitted infections
  - Viral

# Causes of Ophthalmia Neonatorum

- *Chlamydia trachomatis* is the most common cause of sexually transmitted ON in North America.
- ON caused by *Neisseria gonorrhoeae* is more severe, has a quicker onset of symptoms, and has more permanent sequelae.



<http://www.pediatricsconsultantlive.com/articles/gonococcal-conjunctivitis#sthash.j9Dm6FP9.dpuf>  
Tigheelaar, H & Kannikeswaran, N (2008). Gonococcal Conjunctivitis. Pediatrics consultant live



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# History of Eye Prophylaxis

**1881** – Neonatal eye prophylaxis introduced to treat gonococcal ophthalmia as there was no effective treatment for women.

**Crede's Prophylaxis**



- Dramatic reduction noted in blindness caused by gonorrhea when treated with topical 2% silver nitrate.
- Adopted widely around the world.



# History of Eye Prophylaxis in BC

**1971** – Regulations for the control of Communicable diseases  
sec. 17 of BC Reg.187/71.

**1983** – Reg. 4/83 replaced Reg. 187/71 .



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# History of Eye Prophylaxis in BC

**1994** – The Health Minister considered changing the regulation so that eye drops were “recommended” instead of “mandatory”.



**1995 & 2012** – Amendments to the language around parents refusing eye treatment.

# History of Eye Prophylaxis in BC

*“A physician, midwife, or other qualified person assisting at the birth of a baby must, within one hour of the birth, treat the eyes of the baby with a prophylactic solution 0.5% erythromycin dispensed in single use containers.”*

# Why Review the Practice Now?

## Three key recommendations in the CPS statement:

1. Neonatal ocular prophylaxis with erythromycin, the only agent currently available in Canada for this purpose, may no longer be useful and therefore, should not be routinely recommended.

# Why Review the Practice Now?

*(Key recommendations continued)*

2. All pregnant women should be screened for *N gonorrhoeae* and *C trachomatis* infections at the first prenatal visit.

# Why Review the Practice Now?

*(Key recommendations continued)*

3. Pediatricians and other physicians caring for newborns should advocate to rescind ocular prophylaxis regulations in jurisdictions in which this is still legally mandated.

# Response to Recommendation #1

*Erythromycin may no longer be useful and should not be routinely recommended.*

- 24.3% of *N. gonorrhoeae* strains in Canada are resistant to erythromycin.
- Erythromycin is no longer recommended for the treatment of gonorrhoeae in adults.

# Response to Recommendation #1

*Erythromycin may no longer be useful and should not be routinely recommended.*

- Topical ocular prophylaxis does not always prevent transmission of chlamydia from mother to infant and does not reliably prevent other complications such as conjunctivitis or pneumonia.

# Response to Recommendation #1

*Erythromycin may no longer be useful and should not be routinely recommended.*

- The introduction of prophylactic antibiotics may contribute to:
  - chemical conjunctivitis
  - antibiotic resistance bacteria
  - care providers not watching for ophthalmia neonatorum (ON)



# Response to Recommendation #1

*Erythromycin may no longer be useful and should not be routinely recommended.*

- The treatment of ON is with an intramuscular or intravenous antibiotic, not eye ointment.

***The best way to prevent ON is to diagnose and treat the maternal infection before delivery.***

# Cases of Ophthalmia Neonatorum in BC

Fiscal year	Screen Source*			
	NB		XF	
	P391	A543	P391	A543
2004/2005	22	0	13	0
2005/2006	25	0	7	0
2006/2007	22	0	6	1
2007/2008	16	0	13	0
2008/2009	16	0	15	0
2009/2010	12	0	14	1
2010/2011	18	0	15	0
2011/2012	18	1	11	0
2012/2013	28	0	9	1
2013/2014	15	0	10	0
2014/2015	8	1	7	1
Total**	200	2	120	4



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## Response to Recommendation #2

*All pregnant women should be screened for N gonorrhoeae and C trachomatis infections.*

- The Canadian Task Force on Preventive Health Care (1992, 1996) and the Canadian STI Guidelines (2013) recommend that all pregnant women be screened for chlamydia and gonorrhoeae at the first prenatal visit.

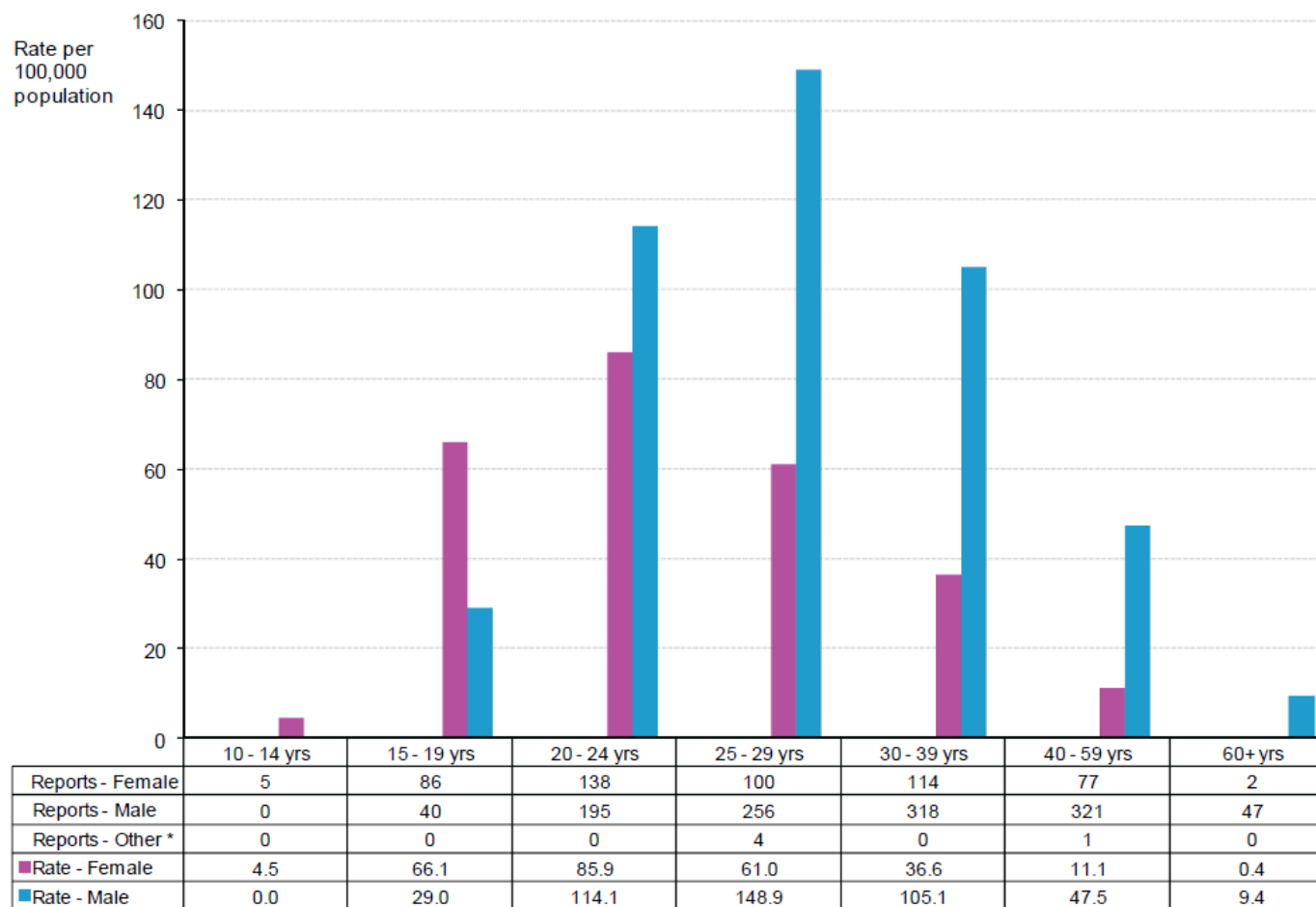
## Response to Recommendation #2

*All pregnant women should be screened for N gonorrhoeae and C trachomatis infections.*

- The rate of gonorrhoeae in BC increased in 2013 to 36.8 from 28.5 per 100,000 in 2012. Chlamydia rates have steadily been increasing since 1998 but with a slight decrease from 2012 to 2013.

# Rates of Genital Gonorrhea in BC

Genital gonorrhea case reports in BC by age group and gender, 2013



Average age at delivery  
in BC is 31 years

\* Other - transgender and gender unknown

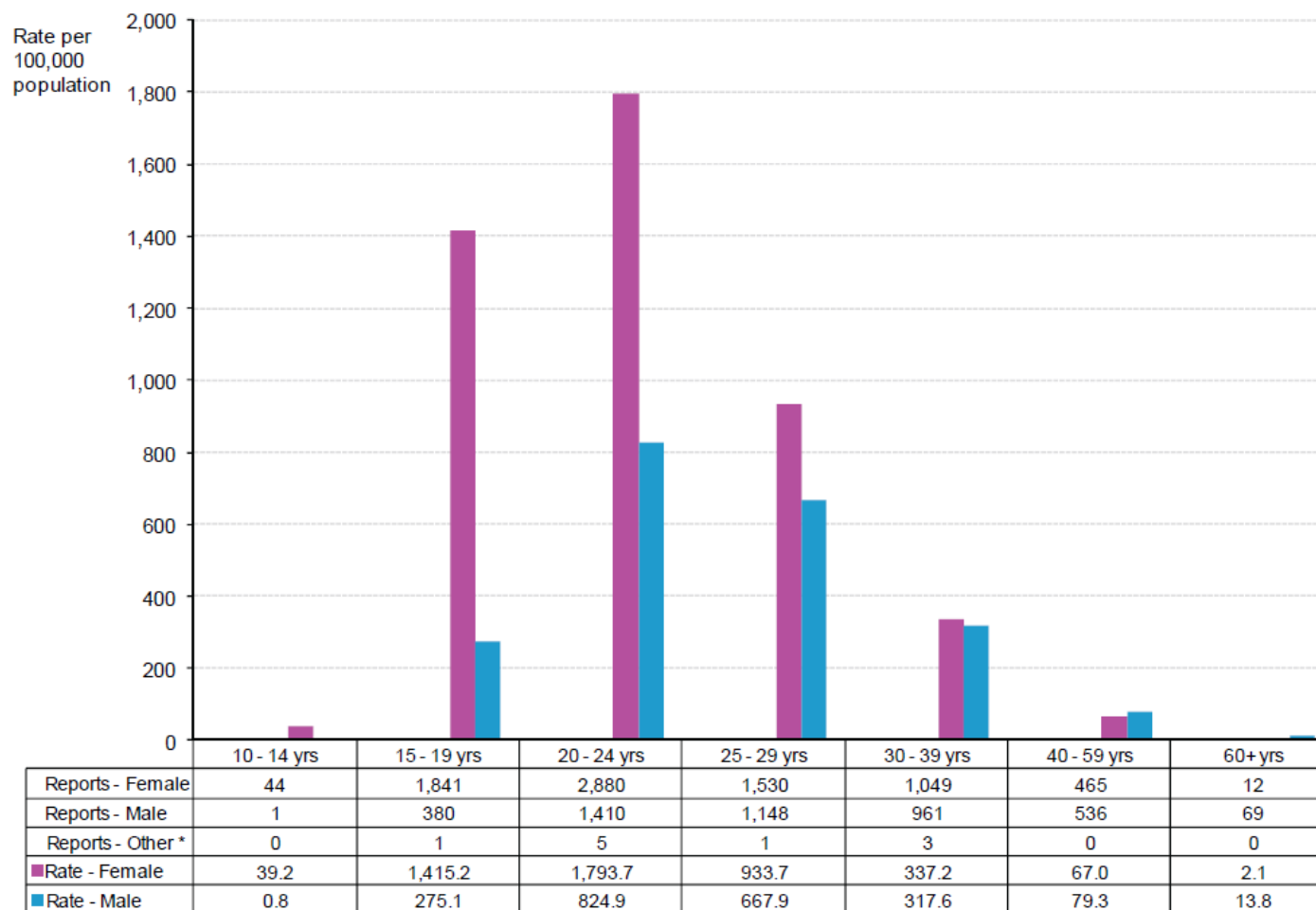
BC Centre for Disease Control. (2015). STI in  
British Columbia: Annual Surveillance Report  
2013.



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# Rates of Genital Chlamydia in BC

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## Response to Recommendation #2

*All pregnant women should be screened for N gonorrhoeae and C trachomatis infections.*

- Perinatal Services BC Maternity Care Pathway (2010) recommends that women be *offered* screening for chlamydia and gonorrhoeae but *recommended* in the presence of risk factors.
- Memo to primary care providers circulated (2015), recommending 1<sup>st</sup> trimester screening as a *standard of practice*

## Response to Recommendation #2

*All pregnant women should be screened for N gonorrhoeae and C trachomatis infections.*

- By screening **all** pregnant women in BC for sexually transmitted infections, diagnosis can be made and treatment administered promptly, thereby protecting newborns from exposure to infections during the birthing process.



## Response to Recommendation #2

*All pregnant women should be screened for N gonorrhoeae and C trachomatis infections.*

- In BC, we do not have data on rates of STI screening done during prenatal care, as chlamydia and gonorrhoeae testing are done at private labs, not the provincial lab.

## Response to Recommendation #3

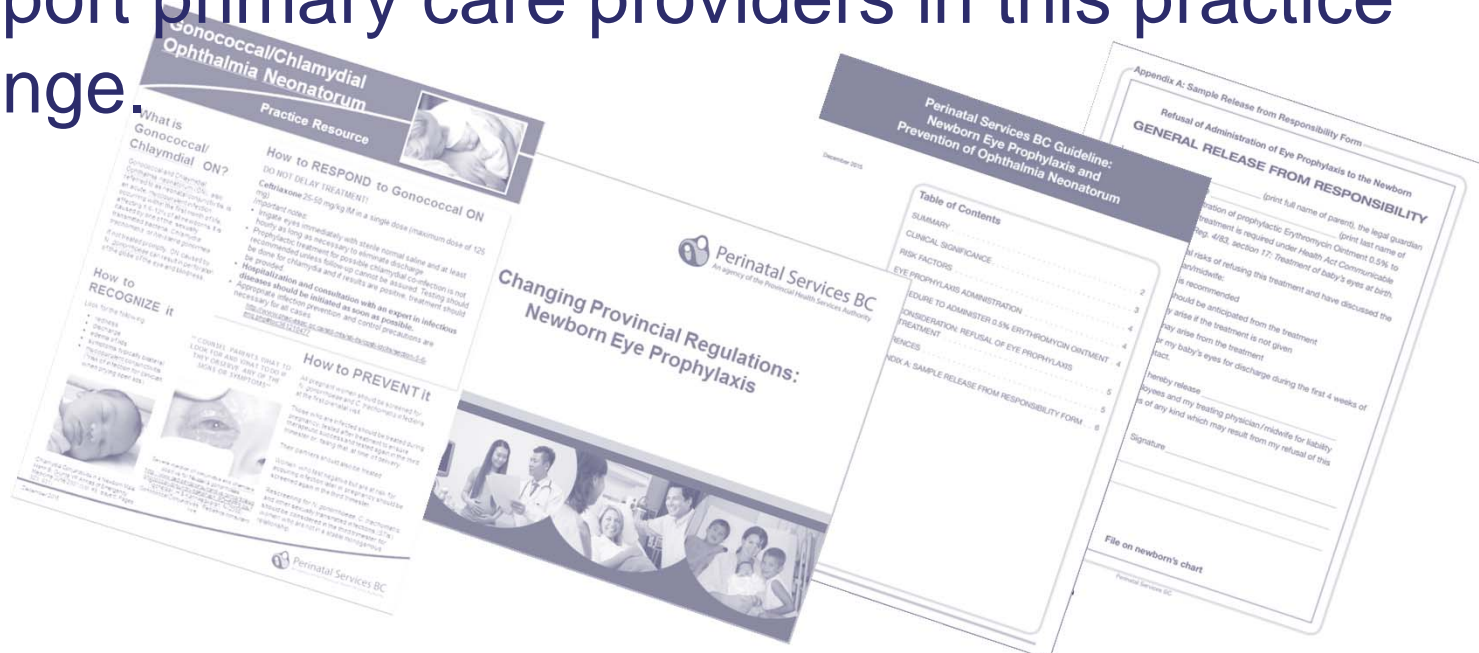
*Health care providers should advocate to rescind ocular prophylaxis regulations where it is still legally mandated.*

- If the law is changed, there will be a need for education to ensure both primary care providers and parents know what to watch for and how to respond if the baby did not receive eye prophylaxis.

# Response to Recommendation #3

*Health care providers should advocate to rescind ocular prophylaxis regulations where it is still legally mandated.*

- Perinatal Services BC will lead the development and implementation of a toolkit to support primary care providers in this practice change



# Response to Recommendation #3

*Health care providers should advocate to rescind ocular prophylaxis regulations where it is still legally mandated.*

- Perinatal Services BC will update the Antenatal Record (PSBC 1582), to clearly communicate screening results.
- Information will be updated in other relevant documents.

## Response to Recommendation #3

*Health care providers should advocate to rescind ocular prophylaxis regulations where it is still legally mandated.*

- Surveillance will be required to ensure that if eye prophylaxis is discontinued, there is no increase in negative outcomes from gonococcal ophthalmia neonatorum.
- This process is currently in place through the BC Centre for Disease Control.

# Change Process

**April 2015**

(Interdisciplinary Task Group met)

**August 2015**

(Data and Surveillance discussion)

**December 2015**

(Letter from Ophthalmologists)

**June 2015**

(Briefing note presented to CD Policy Committee)

**October 2015**

(Update to CD Policy)



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# Options

**OPTION 1:** Repeal current law and recommend screening for all pregnant women at the first prenatal visit for STI's.

**OPTION 2:** Repeal current law and continue to provide eye prophylaxis only to newborns with risk factors as well as recommend screening for all pregnant women at the first prenatal visit for STI's.

**OPTION 3:** Do not repeal law.

# Going forward

- Evidence review is being undertaken.
- Business case for routine 3<sup>rd</sup> trimester screening for Chlamydia and Gonorrhea.
- Report back to CD Policy Committee.
- Implement practice change.



# Questions?