

Introduction and Protocol for Congenital Syphilis Surveillance in California

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May 6, 2013 9-10AM*

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Please mute your phones!



Training Series

Introduction and Protocol for
Congenital Syphilis Surveillance
in California

May 6, 2013 – 9-10AM

Completion of the Revised Congenital
Syphilis Form

May 13, 2013 – 9-10AM

CalREDIE: Initiating, Monitoring and
Entering Data for Congenital Syphilis

May 20, 2013 – 9-10AM

The Revised Congenital Syphilis Report Form – What's New, Why, and How to Use It

John R. Su, MD, PhD, MPH
Division of STD Prevention

April 29, 2013

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of STD Prevention



What we will cover today

- Rationale for changing the system
- National congenital syphilis case definition
- Revised California protocol for surveillance and case management
- Algorithm for classifying congenital syphilis cases
- Case Studies

Changing Congenital Syphilis and Case
Management Protocols in California

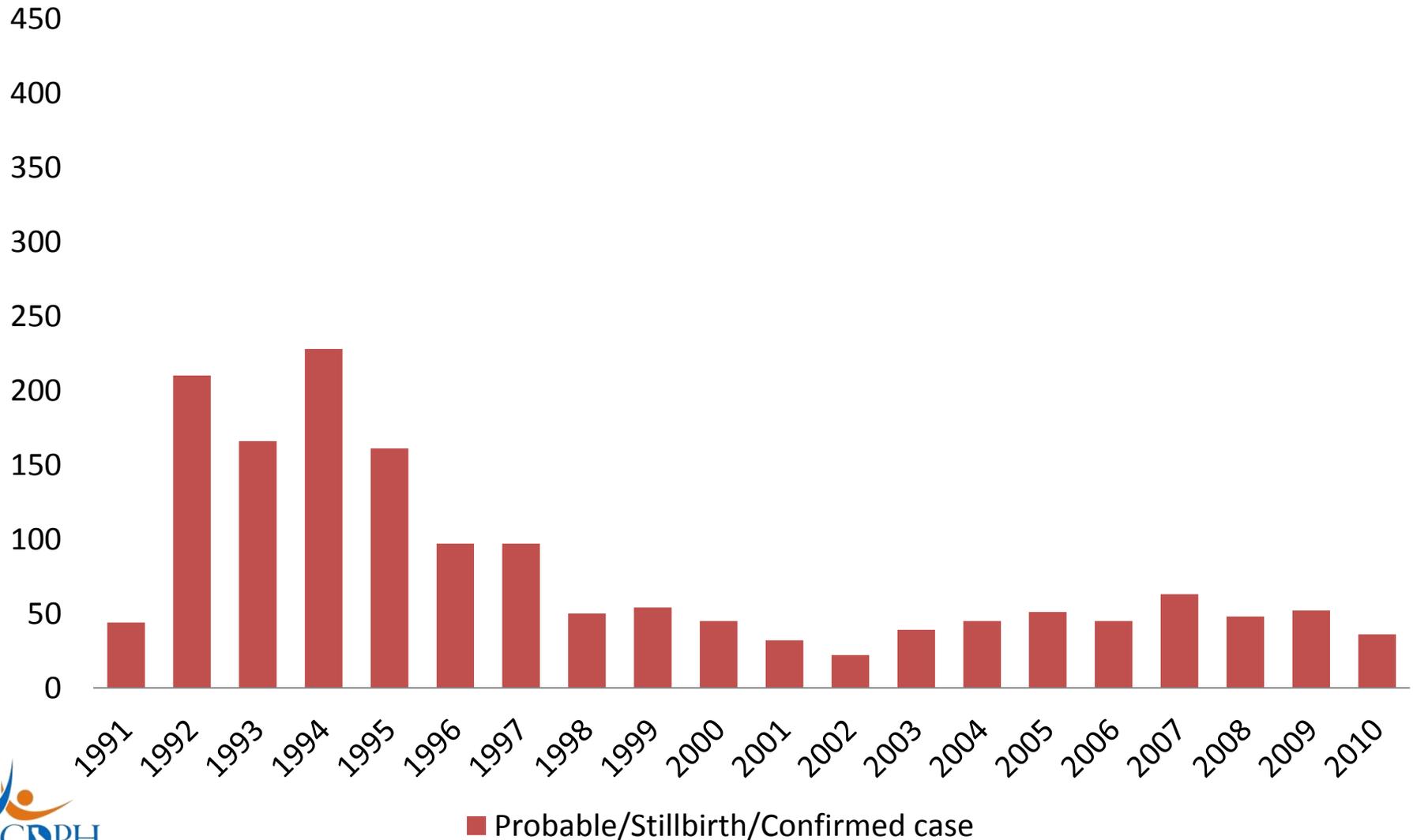
RATIONALE



Rationale for Revisions

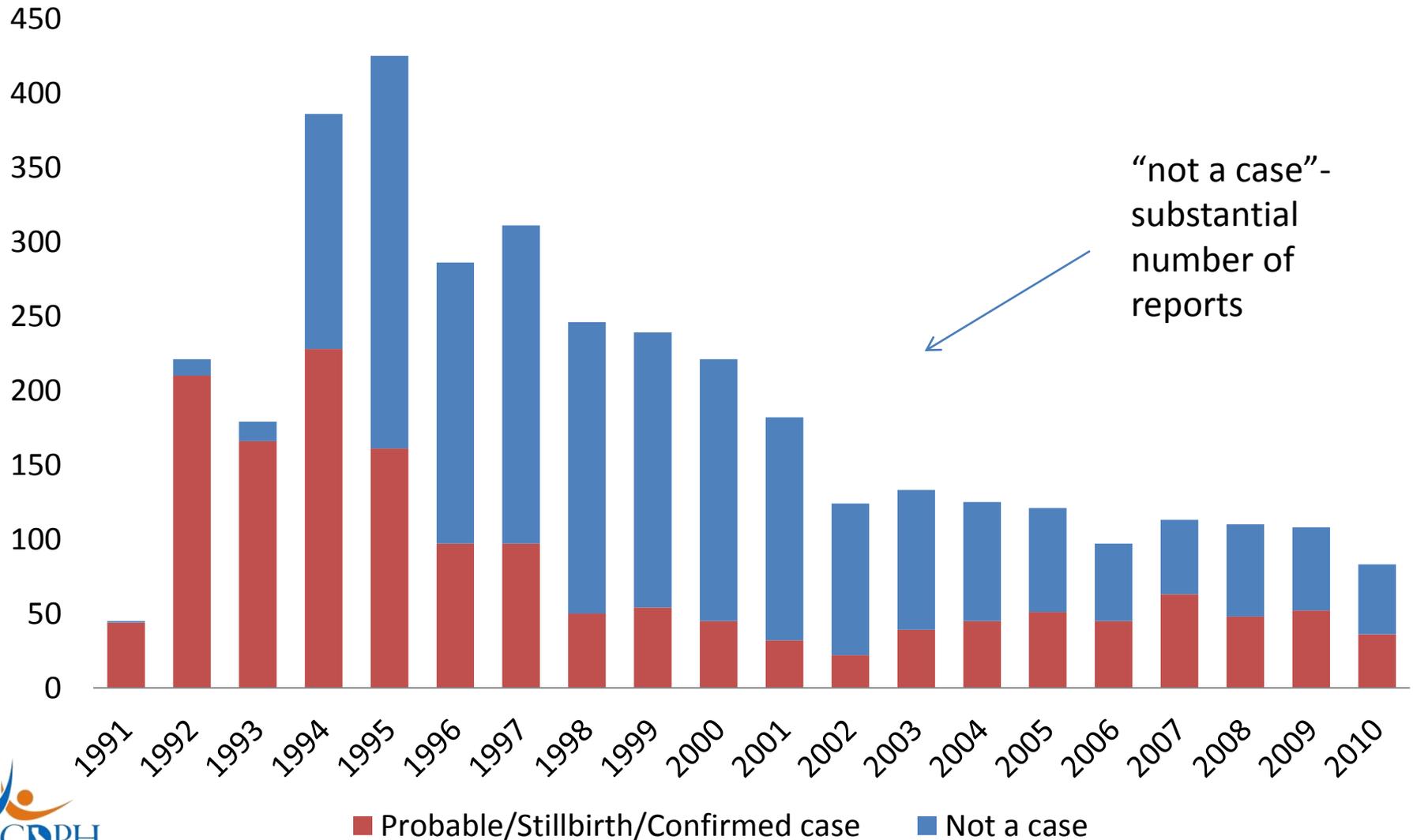
- Low true congenital syphilis morbidity
- Proposed changes will increase efficiencies
 - Reduce paperwork
 - Reduce workload by 3.5 hours per case
- Survey of state DIS in 2010 suggested changes that could be made

Trends in Congenital Syphilis Reporting, 1991-2010

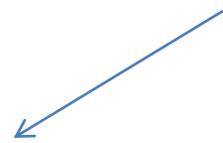


■ Probable/Stillbirth/Confirmed case

Trends in Congenital Syphilis Reporting, 1991-2010



“not a case”-
substantial
number of
reports



Getting on the same page.

CASE DEFINITION



Surveillance Case Definition for Congenital Syphilis (CS)

- A **confirmed case** of CS is an infant or child in whom *Treponema pallidum* is identified by darkfield microscopy, direct fluorescent antibody, or other specific stains in specimens from lesions, placenta, umbilical cord, or autopsy material.
- A **presumptive case** of CS is either of the following: any infant whose mother had untreated or inadequately treated syphilis at the time of delivery, regardless of the findings in the infant or child; any infant or child who has a reactive treponemal test for syphilis and any one of the following:
 - evidence of CS on physical examination;
 - evidence of CS on long bone X-ray;
 - reactive CSF-VDRL;
 - elevated CSF cell count or protein (without other cause);
- A **syphilitic stillbirth** is defined as a fetal death in which the mother had untreated or inadequately treated syphilis at the time of delivery of either a fetus after a 20-week gestation or a fetus weighing >500g.

Definition: Confirmed Case

- positive darkfield or special stains in the specimens from
 - lesions
 - placenta
 - umbilical cord, or
 - autopsy material

Definition: Presumptive Case

- inadequate treatment in the *mother*, regardless of infant results, OR
- reactive [non-]treponemal* test in the *infant* plus one of the following:
 - evidence on physical exam,
 - evidence on long bone X-ray,
 - reactive CSF-VDRL, OR
 - elevated CSF cell count or protein (without other cause)

**CDC does not recommend treponemal tests in infants, as they reflect mother's titer. A non-treponemal test (RPR/VDRL) is sufficient.*

Elevated CSF Results

Age of infant/neonates	Elevated CSF White Blood Cell Count	Elevated CSF Protein Count
≤30 days old	>15 WBC/mm ³	>120 mg/dL
>30 days old	>5 WBC/mm ³	>40 mg/dL

Definition: Syphilitic Stillbirth

- fetal death in which the mother had untreated or inadequately treated syphilis at the time of delivery of either
 - a fetus after a 20-week gestation or
 - a fetus weighing >500g

Adequate treatment for syphilis in pregnant females

Stage of syphilis	Treatment	Timing
Primary, Secondary, and Early Latent	BIC x 1	Administered 30 days or more prior to delivery
Late Latent and Latent of Unknown Duration	BIC x 3	First dose administered 30 days or more prior to delivery, AND all doses received

Pregnant women allergic to penicillin should be treated with penicillin after desensitization. There are no alternative regimens for syphilis treatment in pregnancy.

Preventing and reporting cases.

REVISED PROTOCOL



Responsibilities: Medical Providers vs Public Health

- Medical providers are responsible for the **care of individual patients** by:
 - Diagnosing and appropriately treating syphilis
 - Discussing previous pregnancies
 - Discussing partner testing and treatment
 - Reporting to the Health Department
- Public Health staff are responsible for monitoring and **reducing the spread of syphilis in the community** by
 - Following up on infectious syphilis cases to confirm treatment and conduct partner services
 - Assuring treatment of women of child-bearing age to prevent congenital syphilis
 - Assuring providers have accurate and current information about syphilis in pregnancy and infants

Summary of new protocol for CS management

- Confirm treatment for **all cases in women** of child-bearing age and **infants**
- Initiate FR for the following:
 - All **female cases** of child-bearing age
 - All **females with an infant** with a reactive STS
 - All **infants** with a reactive STS
- Syphilis interview records and partner services are only required for **early cases**
- Complete the revised CS form for the following:
 - Infants or stillborn fetuses of mothers who are **inadequately treated**
 - Infants with reactive STS and **evidence of congenital syphilis**
- Providers should be faxed information sheets according to circumstances.
- Cases should be closed within 30 days of treatment verification or delivery.

Managing Reactive STS in Women

- Reactor search and entry remains the same
 - All reactive STS, including biologic false positives in women should be entered
- Initiation of FRs and verification of clinical information
 - For all new cases
 - For all infants with reactive STS
 - For all mothers determined to be ‘Not a Case’ but deliver infants with reactive STS (rare)

Management of Non-Pregnant Female Syphilis Cases

Early Syphilis Cases

- Confirm treatment
- Initiate FR
- Interview
- Conduct partner services
- Close case within 30 days of treatment confirmation

Late Syphilis Cases

- Confirm treatment series
- Initiate FR
- No interview or partner services
- Fax to providers
 - Guidelines for Clinical Management of Late Latent Syphilis
- Close case within 30 days of treatment series confirmation

Management of Pregnant Syphilis Cases

Adequately Treated

- Confirm treatment series
- Initiate FR if new case
- Interview and partner services for early syphilis cases only
- Fax to providers
 - Evaluation and Management of Pregnant Women with Syphilis
 - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Close case within 30 days of treatment confirmation

Inadequately Treated

- Interview and partner services for early syphilis cases only
- Initiate FR on mother (if new case) and infant
- Fax to providers
 - Evaluation and Management of Pregnant Women with Syphilis
 - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Contact the ICCR headquarters for CS ID Number
- Complete the CS Form
- Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

Management of Reactive STS in Infants

Mother Adequately Treated

- Confirm treatment series
- Initiate FR for mother if new case
- Initiate FR for infant
- Interview and partner services for early syphilis cases only (mother)
- Fax to providers
 - Evaluation and Management of Pregnant Women with Syphilis
 - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- If infant has evidence of CS
 - Contact the ICCR headquarters for CS ID Number
 - Complete the CS Form
 - Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

Mother Inadequately Treated

- Initiate FR for mother if new case
- Initiate FR for infant
- Interview and partner services for early syphilis cases only (mother)
- Fax to providers
 - Evaluation and Management of Pregnant Women with Syphilis
 - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Contact the ICCR headquarters for CS ID Number
- Complete the CS Form
- Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

Management of Reactive STS in Delivery Blood

Mother Adequately Treated

- Confirm treatment series
- Initiate FR for mother if new case
- Initiate FR for infant
- Interview and partner services for early syphilis cases only (mother)
- Fax to providers
 - Evaluation and Management of Pregnant Women with Syphilis
 - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- If infant has evidence of CS
 - Contact the ICCR headquarters for CS ID Number
 - Complete the CS Form
 - Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

Mother Inadequately Treated

- Initiate FR for mother if new case
- Initiate FR for infant
- Interview and partner services for early syphilis cases only (mother)
- Fax to providers
 - Evaluation and Management of Pregnant Women with Syphilis
 - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Contact the ICCR headquarters for CS ID Number
- Complete the CS Form
- Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

Management of Suspected Syphilitic Stillbirths

Mother Adequately Treated

- Confirm treatment series
- Initiate FR for mother if new case
- Interview and partner services for early syphilis cases only
- Close case within 30 days of treatment series confirmation

Do not report as syphilitic stillbirth – does not meet the case definition.

Mother Inadequately Treated

- Initiate FR for mother if new case
- Interview and partner services for early syphilis cases only
- Fax to providers
 - Evaluation and Management of Pregnant Women with Syphilis
- If fetus was delivered after a 20-week gestation or weighed >500g
 - Contact the ICCR headquarters for CS ID Number
 - Complete the CS Form
 - Classify the infant as a syphilitic stillbirth
- Alert the STD Controller
- Close case within 30 days of stillbirth

Case Closure, Case Review and Documentation

Mother Adequately Treated

- Within 30 days of treatment confirmation

Mother Inadequately Treated

- Within 30 days of treatment confirmation, stillbirth or delivery

- Front line supervisors should review all cases prior to submission.
- The following should be submitted to the Congenital Syphilis Coordinator within 7 days of case closure :
 - California CS Case Investigation and Report
 - Copy of the FR for mother and infant
 - Reactor history printed from the local reactor database
 - For early cases: copies of the FRs for partners and IR for mother
- Notify ICCR headquarters if you request a CS ID Number and the infant is subsequently determined not to be a case.

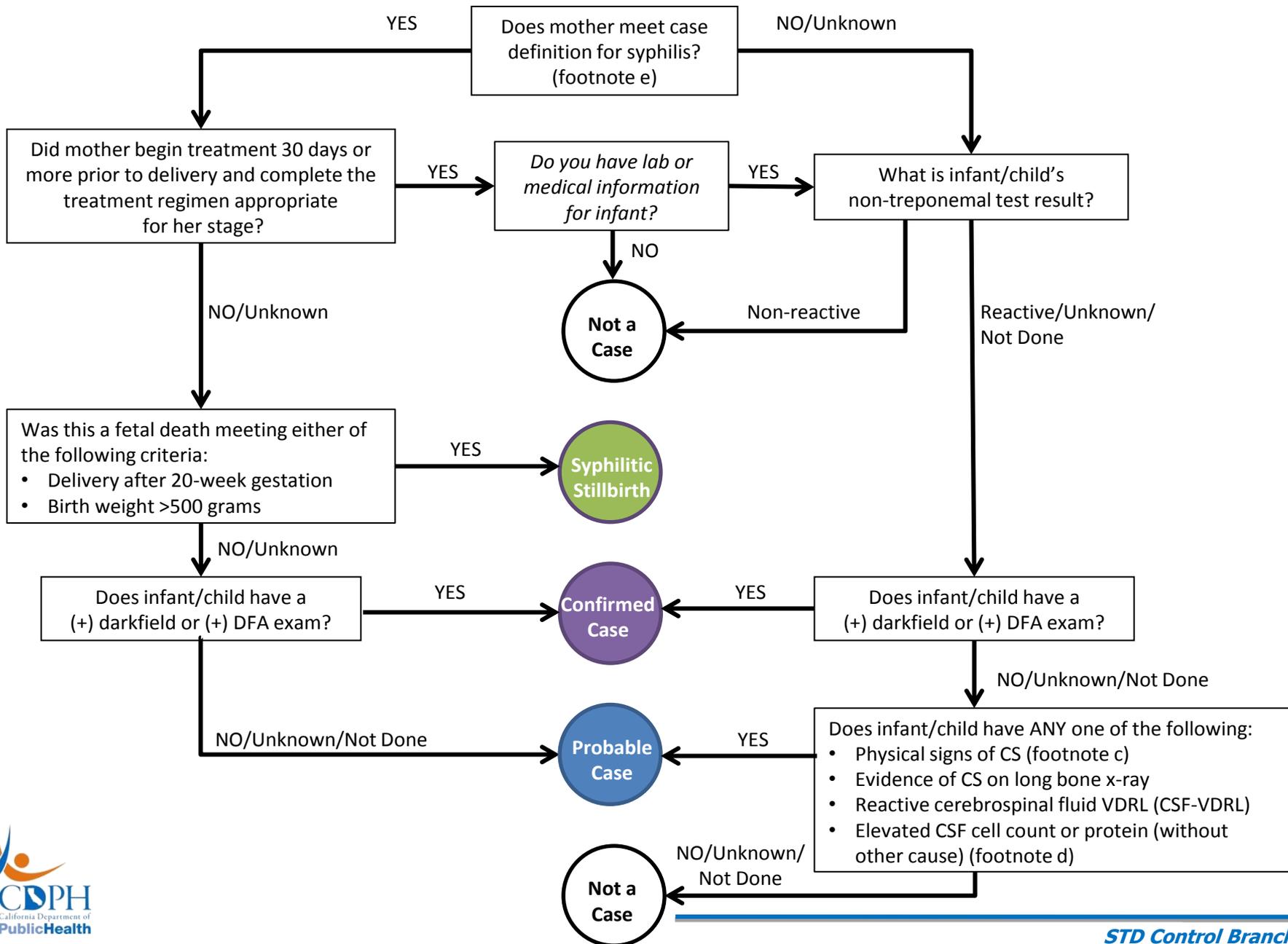
CONGENITAL SYPHILIS COORDINATOR:
cpacs@cdph.ca.gov or fax to **916.440.5949**

Classifying CS Cases

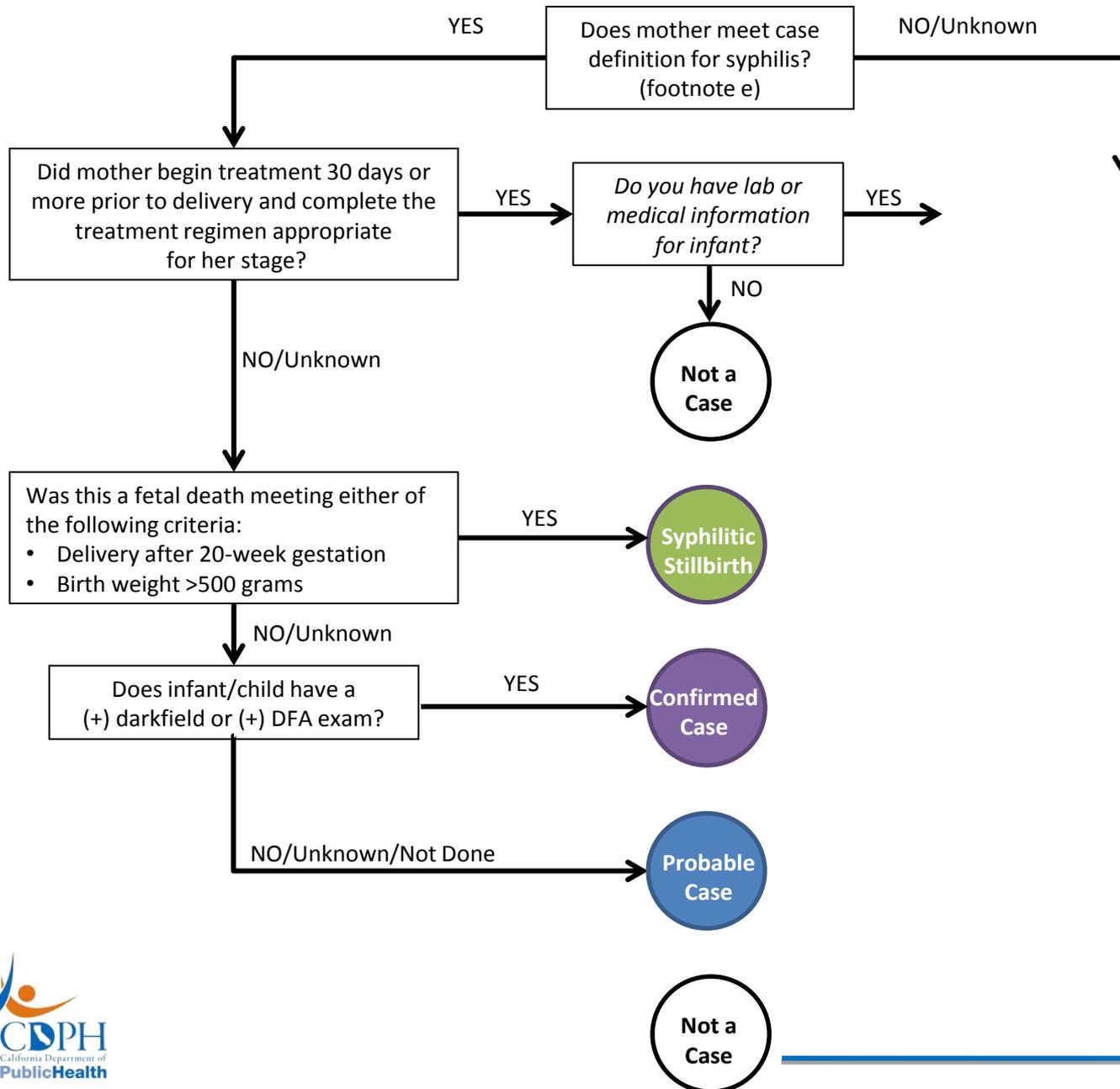
THE ALGORITHM



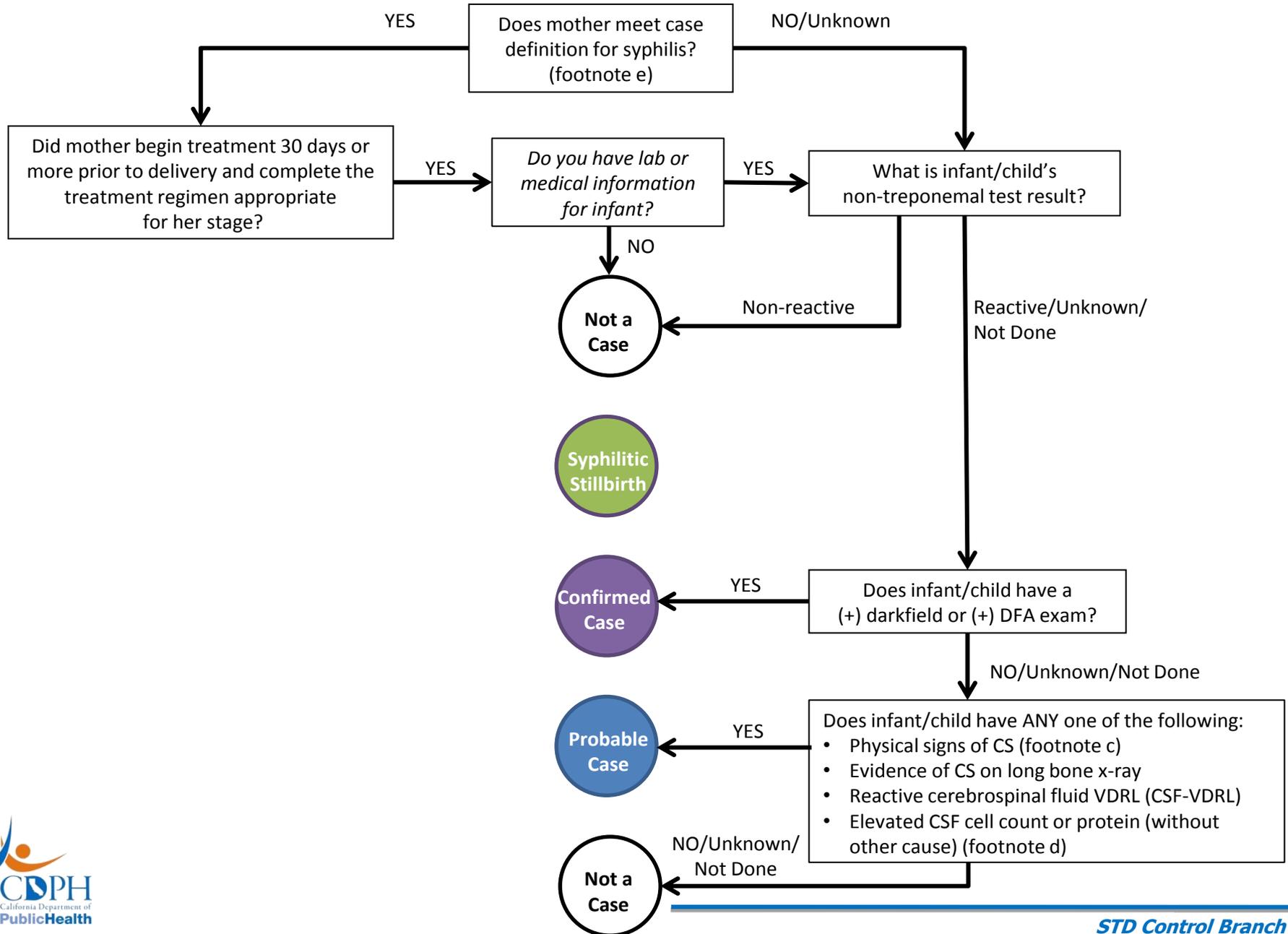
Algorithm for Classifying CS Cases



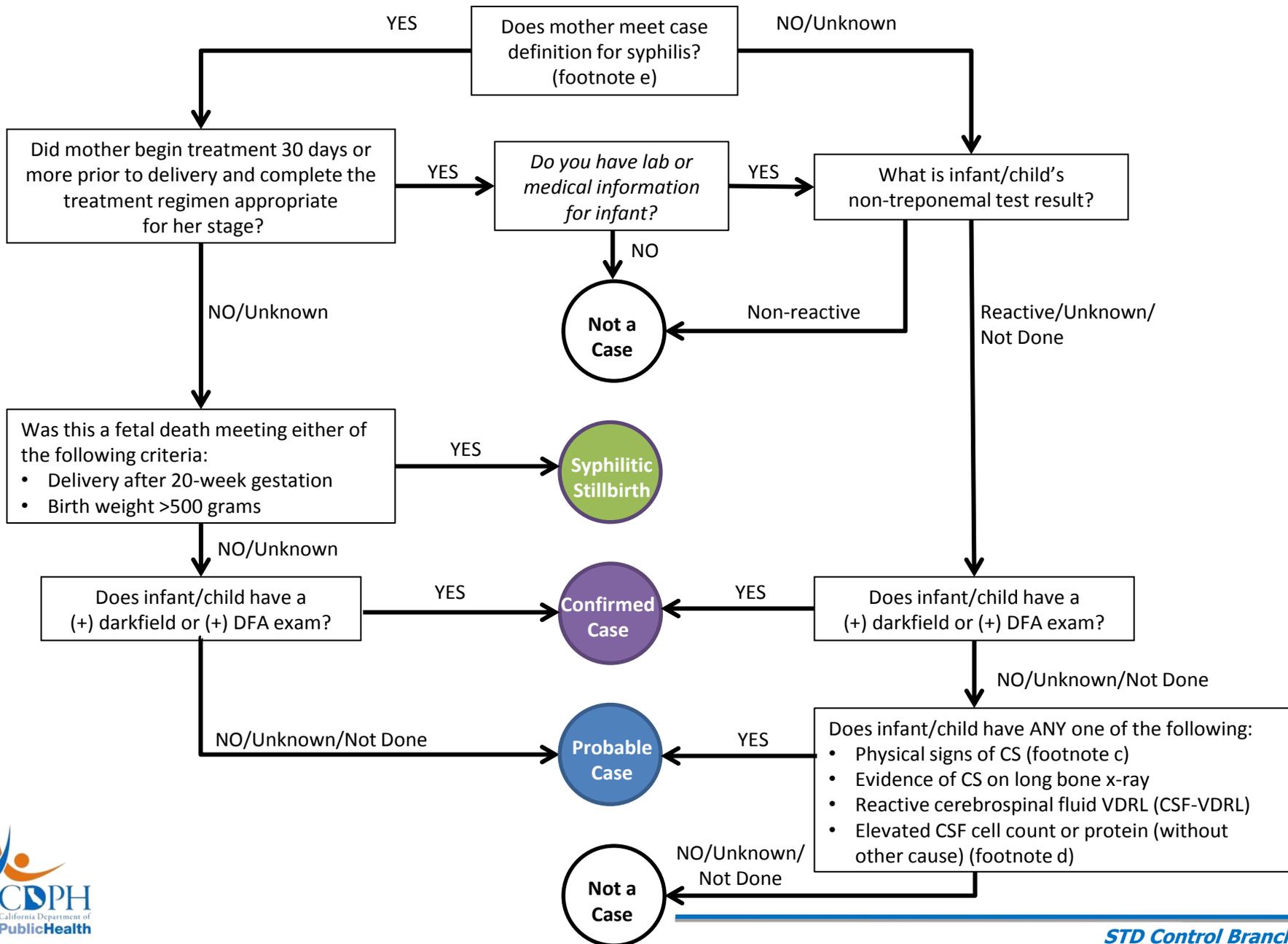
Algorithm for Classifying CS Cases



Algorithm for Classifying CS Cases



Algorithm for Classifying CS Cases



Putting theory into practice.

CASE STUDY #1



Case Study #1: Sophia

- 27 year old mother, who is TP-PA+ with RPR of 1:16
- Previously treated for secondary syphilis (2009) with 2.4 MU BIC
- Last reported RPR of 1:2 in 2010

What stage of syphilis does Sophia have?



What stage of syphilis does Sophia have?

- She has no symptoms
 - Reports no symptoms consistent with syphilis in past 12 months
- She has reactive treponemal test (TP-PA+)
 - Treated for secondary syphilis in the past
- Her last RPR = 1:2, but her titer is now 1:16
 - Four-fold increase in non-treponemal titer
- Sophia meets case definition for *late latent syphilis*.

Case Study #1: Sophia (cont)

- Sophia received her first dose of 2.4 MU of BIC 40 days before delivery.
- She received her 3rd dose of BIC (i.e., she completed treatment) 26 days before delivery.
- Treatment was verified by a medical provider.

Was Sophia adequately treated for syphilis?



Adequate treatment for syphilis in pregnant females

Stage of syphilis	Treatment	Timing
Primary, Secondary, and Early Latent	BIC x 1	Administered 30 days or more prior to delivery
Late Latent and Latent of Unknown Duration	BIC x 3	First dose administered 30 days or more prior to delivery, AND all doses received

Pregnant women allergic to penicillin should be treated with penicillin after desensitization. There are no alternative regimens for syphilis treatment in pregnancy.

Was Sophia adequately treated for syphilis?

- Sophia received 7.2 MU BIC
 - Appropriate treatment for late latent syphilis
- She began treatment 40 days before delivery
 - She completed treatment 26 days before delivery

Yes, Sophia was adequately treated for syphilis.

Management of Pregnant Syphilis Cases

Adequately Treated

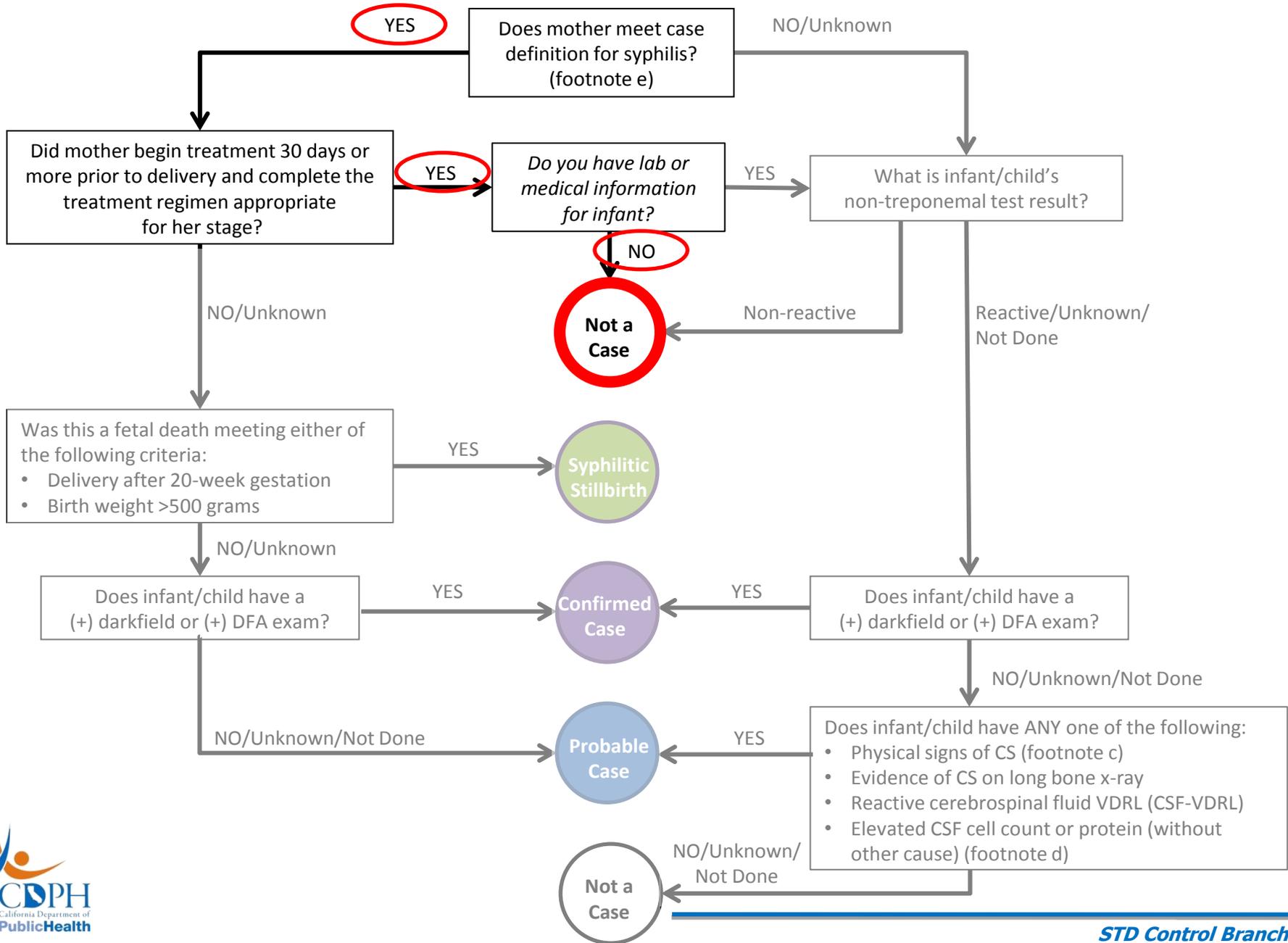
- Confirm treatment series
- Initiate FR if new case
- Interview and partner services for early syphilis cases only
- Fax to providers
 - Evaluation and Management of Pregnant Women with Syphilis
 - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Close case within 30 days of treatment confirmation

Inadequately Treated

- Interview and partner services for early syphilis cases only
- Initiate FR on mother (if new case) and infant
- Fax to providers
 - Evaluation and Management of Pregnant Women with Syphilis
 - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Contact the ICCR headquarters for CS ID Number
- Complete the CS Form
- Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

Management of Sophia's Case

- Confirm treatment series
- Initiate FR if new case
- No interview required – late latent case
- Fax to provider
 - Evaluation and Management of Pregnant Women with Syphilis
 - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Close case within 30 days of treatment confirmation
- Submit to Congenital Syphilis Coordinator within 7 days of case closure



Putting theory into practice.

CASE STUDY #2



Case Study #2: Isabella

- 3 month-old female with RPR of 1:8
- Adopted – no information on mother
- Lumbar puncture results:
 - WBC count = 3 WBC/mm³
 - CSF protein = 58 mg/dL
- No long bone X-ray available

Is Isabella's serology consistent with a diagnosis of CS?



Is Isabella's serology consistent with a diagnosis of CS?

- Isabella has a reactive non-treponemal tests
 - RPR 1:8
- She does not have a reactive treponemal test, but this is not required in infants.

Yes, Isabella's serology is consistent with a diagnosis of CS.

Management of Reactive STS in Infants

Mother Adequately Treated

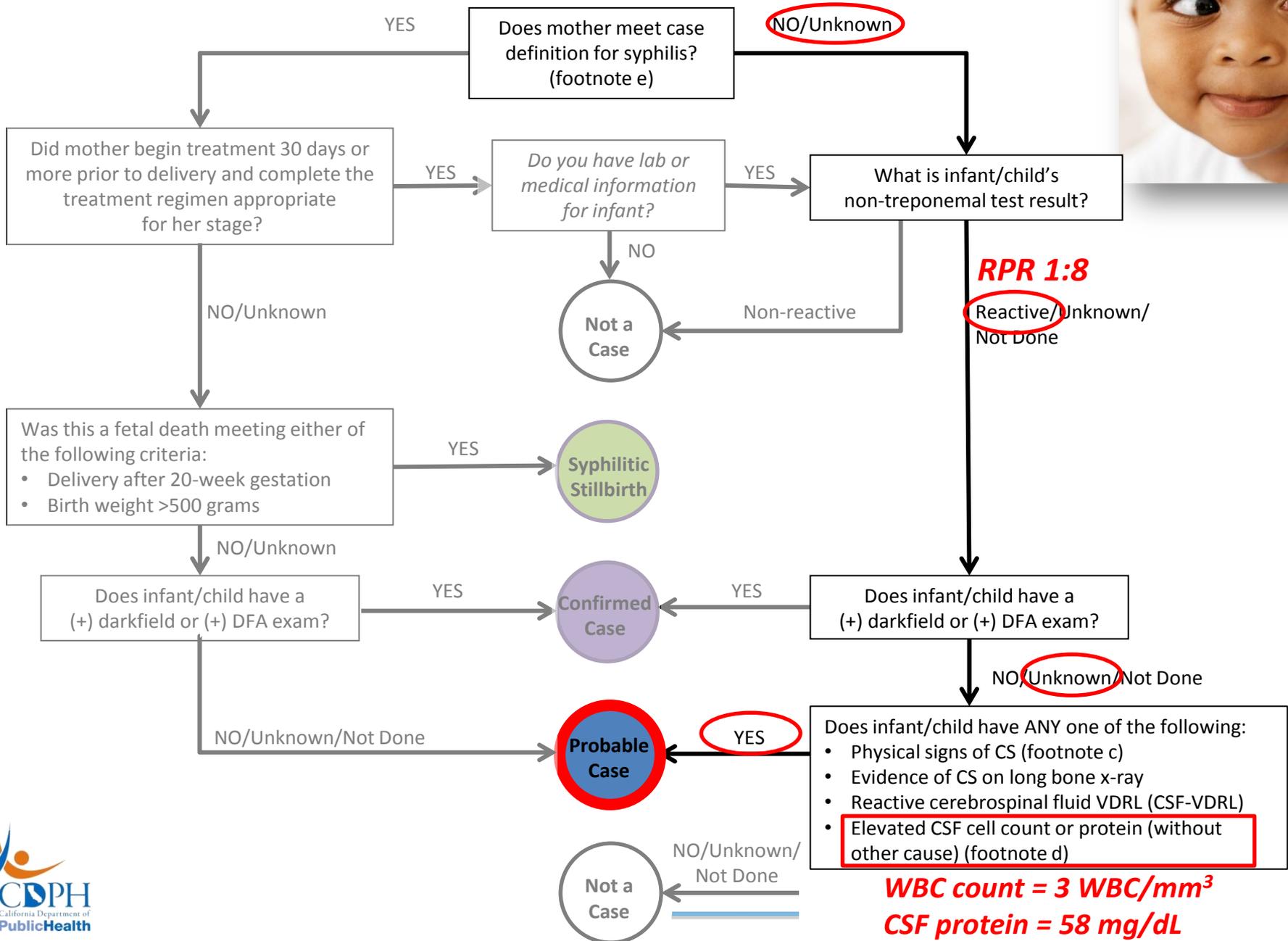
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- If infant has evidence of CS
 - Contact the ICCR headquarters for CS ID Number
 - Complete the CS Form
 - Classify the infant using the CS algorithm
- Close case within 30 days of delivery

Mother Inadequately Treated

- Initiate FR for mother if new case
- Initiate FR for infant
- Interview and partner services for early syphilis cases only (mother)
- Fax to providers
 - Evaluation and Management of Pregnant Women with Syphilis
 - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Contact the ICCR headquarters for CS ID Number
- Complete the CS Form
- Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of delivery

Management of Isabella's Case

- Initiate FR for infant
- Fax to provider
 - Guidelines for Evaluation and Management of Neonates Exposed to Syphilis
- Contact the ICCR headquarters for CS ID Number
- Complete the CS Form
- Classify the infant using the CS algorithm
- Alert the STD Controller
- Close case within 30 days of lab report
- Submit to Congenital Syphilis Coordinator within 7 days of case closure



Definition: Presumptive Case

- inadequate treatment in the *mother*, regardless of infant results, OR
- reactive non-treponemal test in the *infant* plus one of the following:
 - evidence on physical exam,
 - evidence on long bone X-ray,
 - reactive CSF-VDRL, OR
 - elevated CSF cell count or protein (without other cause)

Age of infant/neonates	Elevated CSF White Blood Cell Count	Elevated CSF Protein Count
≤30 days old	>15 WBC/mm ³	>120 mg/dL
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SUMMARY



Protocol Summary

- Confirm treatment for **all cases in women** of child-bearing age and **infants**
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- Providers should be faxed information sheets according to circumstances.
- Cases should be closed within 30 days of treatment verification or delivery, and sent to the CS Coordinator within 7 days.



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Thank You!

California Department of Public Health

- Michael Samuel
- Denise Gilson
- Romni Neiman
- Edwin Lopez
- George Camarillo
- Heidi Bauer

County of San Diego

- Heidi Aiem
- Debra Lopez-Devereaux

Contact Information

PRESENTER INFORMATION:

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Jessica.Frasure@cdph.ca.gov

SUBMIT ALL FORMS TO:

Congenital Syphilis Coordinator
cpacs@cdph.ca.gov or
fax to 916.440.5949