WSAS Lunch and Learn Paediatric SARC medical Examination

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Learning objectives

- Role of the CSA Medical
- Understanding of some of the terminology used in reports
- Differences pre-pubertal and post pubertal
- How examination carried out
- Dermatological conditions
- Aftercare needs

Self care



WE WILL BE DISCUSSING ANATOMY AND INJURIES.



NO PHOTOS, BUT SOME LINE DRAWINGS.



PLEASE TAKE TIME OUT IF YOU NEED.

Purpose of the CSA examination - Acute

- Gaining forensic evidence that may be processed by Police for evidential purposes. (Time limited)
- Documentation of injuries.
- Provision of acute health needs assessment; Emergency contraception, PEP, HEP B. (Time limited)
- STI testing.
- Reassurance for the child/ family.
- Holistic review of other health needs including mental health, and onwards signposting as required.
- Reports for social services and Police.
- **SARC is NOT able to deal with acutely unwell child. Health needs must be dealt with in a hospital setting.**

Purpose of the CSA examination - Historic

- Documentation of injuries
- Sexual health assessment or follow up
- Completion of Hep B immunisations
- Reassurance
- Holistic review and identification of any unmet health needs
- Reports for Social services and Police.



'The purpose of the medical examination is not only to look for signs (evidence) but also to ensure the health and well-being of the child – the therapeutic value of which can not be overstated' RCPCH

ynys saff
safe island

cardiff and vale
sexual assault referral centre

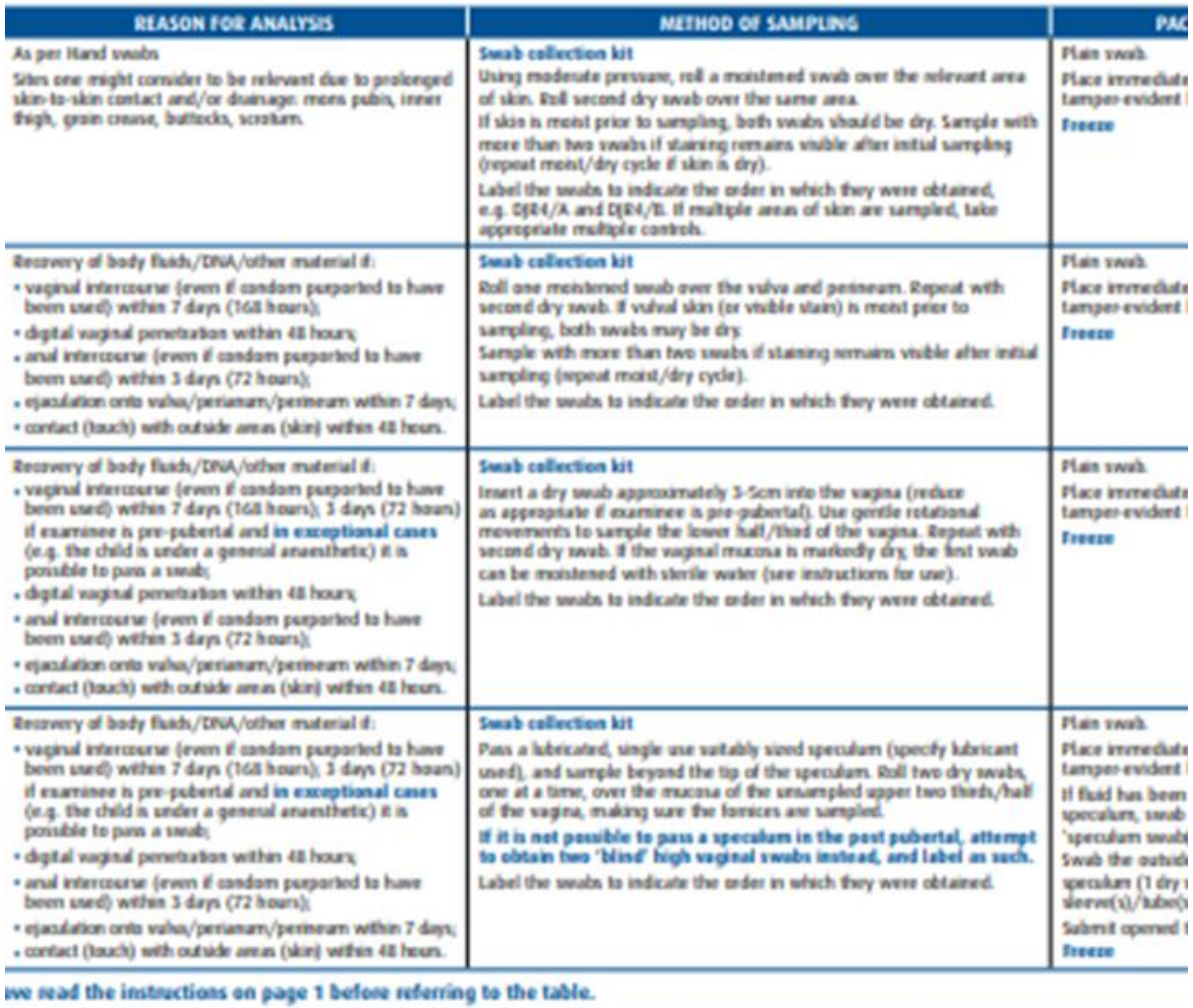


FFLM Guidance

"A paediatric forensic examination will be required whenever a child has made an allegation of sexual abuse, or sexual abuse has been witnessed, or when a referring agency strongly suspects abuse has occurred."

Even when a forensic window may be passed, it may still be important to have a medical to document injuries or address any acute health needs where an assault has happened recently.

Worth Discussion with team to think about health needs, especially emergency contraception, if assault within past 14 days.

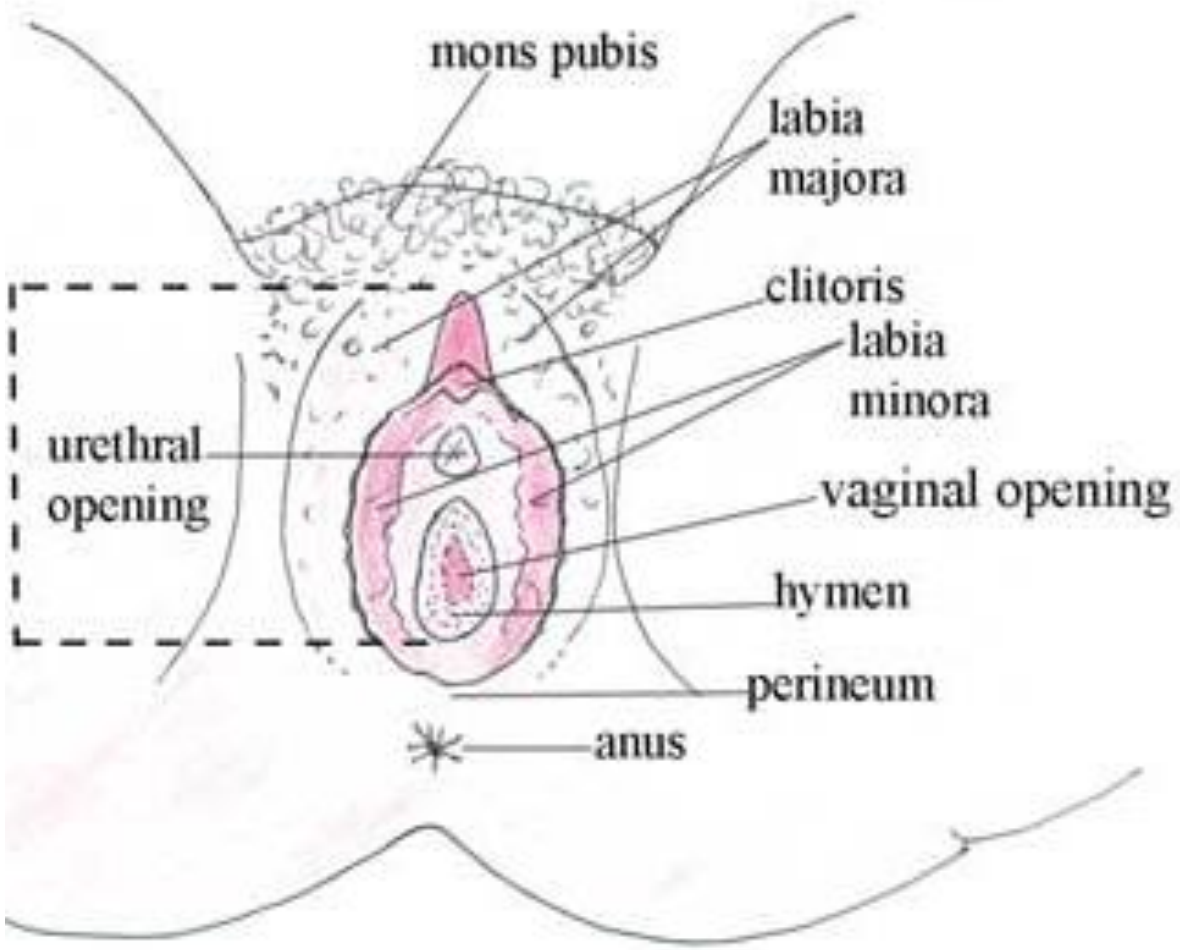


REASON FOR ANALYSIS	METHOD OF SAMPLING	PAC
As per Hand swabs Sites one might consider to be relevant due to prolonged skin-to-skin contact and/or drainage: mons pubis, inner thigh, groin crease, buttocks, scrotum.	**Swab collection kit** Using moderate pressure, roll a moistened swab over the relevant area of skin. Roll second dry swab over the same area. If skin is moist prior to sampling, both swabs should be dry. Sample with more than two swabs if staining remains visible after initial sampling (repeat moist/dry cycle if skin is dry). Label the swabs to indicate the order in which they were obtained, e.g. DJR4/A and DJR4/B. If multiple areas of skin are sampled, take appropriate multiple controls.	Plain swab Place immediate tamper-evident **Freeze**
Recovery of body fluids/DNA/other material if: • vaginal intercourse (even if condom purported to have been used) within 7 days (168 hours); • digital vaginal penetration within 48 hours; • anal intercourse (even if condom purported to have been used) within 3 days (72 hours); • ejaculation onto vulva/perianum/perineum within 7 days; • contact (touch) with outside areas (skin) within 48 hours.	**Swab collection kit** Roll one moistened swab over the vulva and perineum. Repeat with second dry swab. If vulval skin (or visible stain) is moist prior to sampling, both swabs may be dry. Sample with more than two swabs if staining remains visible after initial sampling (repeat moist/dry cycle). Label the swabs to indicate the order in which they were obtained.	Plain swab Place immediate tamper-evident **Freeze**
Recovery of body fluids/DNA/other material if: • vaginal intercourse (even if condom purported to have been used) within 7 days (168 hours); 3 days (72 hours) if examinee is pre-pubertal and **in exceptional cases** (e.g. the child is under a general anaesthetic) it is possible to pass a swab; • digital vaginal penetration within 48 hours; • anal intercourse (even if condom purported to have been used) within 3 days (72 hours); • ejaculation onto vulva/perianum/perineum within 7 days; • contact (touch) with outside areas (skin) within 48 hours.	**Swab collection kit** Insert a dry swab approximately 3-5cm into the vagina (reduce as appropriate if examinee is pre-pubertal). Use gentle rotational movements to sample the lower half/third of the vagina. Repeat with second dry swab. If the vaginal mucosa is markedly dry, the first swab can be moistened with sterile water (see instructions for use). Label the swabs to indicate the order in which they were obtained.	Plain swab Place immediate tamper-evident **Freeze**
Recovery of body fluids/DNA/other material if: • vaginal intercourse (even if condom purported to have been used) within 7 days (168 hours); 3 days (72 hours) if examinee is pre-pubertal and **in exceptional cases** (e.g. the child is under a general anaesthetic) it is possible to pass a swab; • digital vaginal penetration within 48 hours; • anal intercourse (even if condom purported to have been used) within 3 days (72 hours); • ejaculation onto vulva/perianum/perineum within 7 days; • contact (touch) with outside areas (skin) within 48 hours.	**Swab collection kit** Pass a lubricated, single use suitably sized speculum (specify lubricant used), and sample beyond the tip of the speculum. Roll two dry swabs, one at a time, over the mucosa of the unsampled upper two thirds/half of the vagina, making sure the fornices are sampled. **If it is not possible to pass a speculum in the post pubertal, attempt to obtain two 'blind' high vaginal swabs instead, and label as such.** Label the swabs to indicate the order in which they were obtained.	Plain swab Place immediate tamper-evident If fluid has been speculum, swab 'speculum swab Swab the outside speculum (1 dry sleeve(s)/tube(s) Submit opened **Freeze**

ive read the instructions on page 1 before referring to the table.

Forensic Window

- [Recommendations for the Collection of Forensic Specimens from Complainants and Suspects - FFLM]



Anatomy revision

What is the hymen?

- Membranous piece of tissue at entrance to vagina surrounding hymenal orifice
- Prepubertal
- Pubertal
- Appearance changes with age and hormonal influence
- Can it be broken?

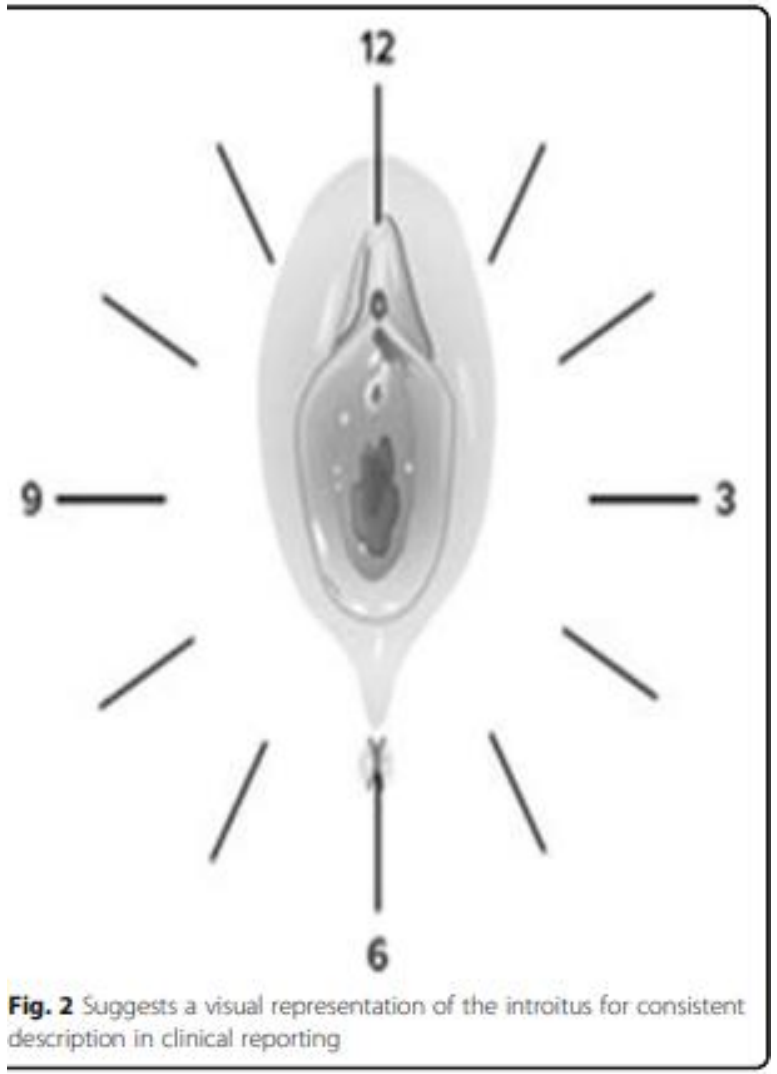


Fig. 2 Suggests a visual representation of the introitus for consistent description in clinical reporting

Clockface descriptions.

- When describing the hymen, use of the "clockface" allows description of the location of any signs.
- 12 o'clock is anterior – closest to the urethral opening.
- 6 o'clock is posterior – closest to the anus.
- In the UK clockface descriptors are used relative to the anatomy and do not change with position of child. Some centers in the USA will use the clockface description in relation to the position to the child.

- Image from "The little tissue that couldn't – dispelling myths about the Hymen's role in determining sexual history and assault" Ranit Mishori1* , Hope Ferdowsian2 , Karen Naimer3 , Muriel Volpellier4 and Thomas McHale

Hymenal appearances pre pubertal

- The hymen has several anatomical configurations that are influenced by the child's age and physical maturity.
- Changes are influenced by the presence of oestrogen, and therefore vary over time, with increased oestrogen being present after birth (influence of maternal oestrogen) and then increasing again towards onset of puberty.
- The pre pubertal hymen is highly sensitive. It is not possible to swab or touch the hymen without causing potential distress, therefore generally avoided.
- There is no evidence to suggest a hymen can be "congenitally absent".

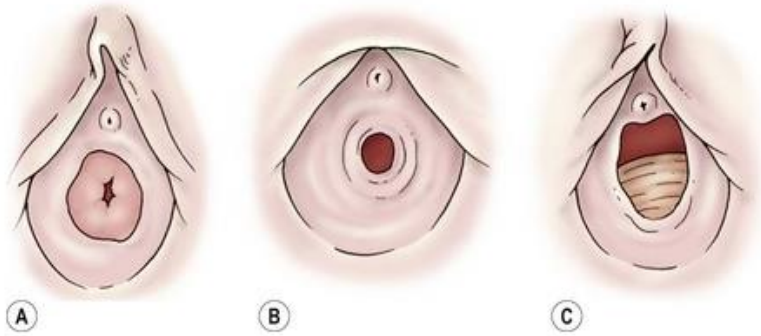
Prepubertal hymenal configurations

- Most common configurations include;
  - Annular

    Tissue present circumferentially. Doughnut shaped.
  - Crescentic

    No definable hymenal tissue present between 11 and 1 o'clock positions (may vary - use clockface to describe)
  - Fimbriated

    In pre-pubertal may appear thickened and fimbriated due to maternal oestrogenisation.



Normal anatomic variations of the hymen. (Adapted from Pokorny SF, Stormer J. Atraumatic removal of secretions from the prepubertal vagina. Am J Obstet Gynecol

Pediatric and Adolescent Gynecology

Julie L. Strickland



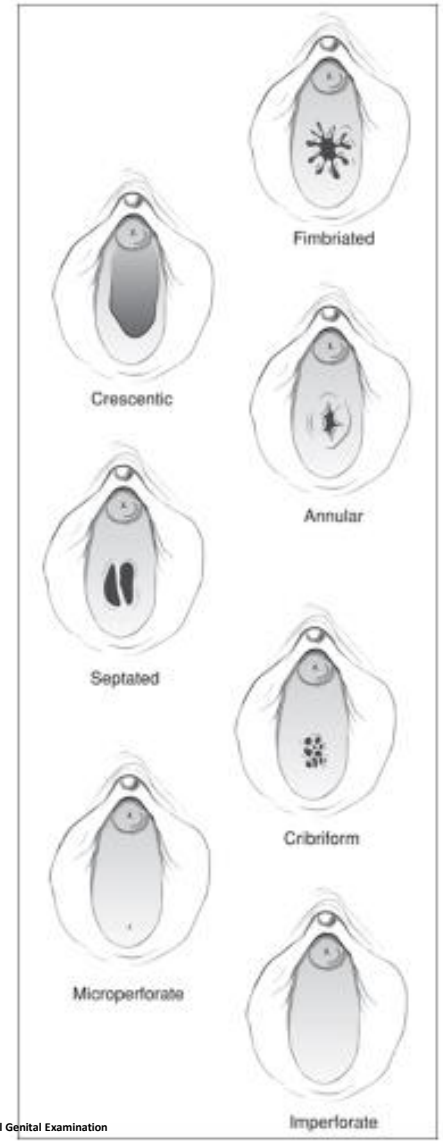
Changes during puberty

- With onset of puberty we see further change in hymenal morphology
- Oestrogen leads to thickening of hymenal tissue and increased elasticity.
- Overlapping tissue presents challenges with visualising all surfaces
- Decreased sensitivity of hymen may allow use of swab or catheter to aid complete examination.
- "Tweens" can be tricky – fimbriated but sensitive.

Less common prepubertal appearances

- Sleeve like hymen

  Typically in infants with residual oestrogen present
- Septate Hymen
- Cribiform Hymen
- Microperforate Hymen
- Imperforate Hymen



Prepubertal Genital Examination

Cindy W. Christian
Joanne M. Decker1

Figure 91.2 Normal variants in hymenal structure.

Examination methods

- Background information gathered by paediatrician and FME from the attending police officer/ social worker.
  - Will want to know about details of first account
  - Social background
  - Any factors about the alleged offender that may increase risks for HIV/ Hepatitis
  - Any early evidence kit use
  - Any actions such as emergency contraception already taken

Examination process

- Talking to the family
  - The medical team will avoid asking the child/family to repeat what has already been told to police in first account or ABE.
  - They may need to ask some specific questions to help identify areas to swab and risk assess, if that's not been covered already.
  - Explanation of the medical examination will be given to child and carer in detail
    - Will highlight can stop at anytime
    - Will give as many options as possible to allow child to feel in control.
    - Will look at options around self swabbing/ just addressing health needs without doing intimate examination if child is clear they don't wish to be examined.
  - Consent process is vital, especially where control has already been taken from them.

Examination

- Once consent provided, will move to examination room
- Will discuss ISO PPE use so not unexpected.
- Start with less threatening aspect of examination usually - helps build rapport and trust
- Full top to toe (if consent given) to look for other injuries or health concerns. Don't need to fully undress- can do piece by piece
- Genital examination in "frog leg" position. No stirrups. Gown to maintain some dignity.

Examination pre pubertal

- Parent/ carer at beside
- Frog leg position
- Lot of chatting and distraction
- Mainly observation – often can see everything needed with just gentle separation of the labia
- Swabs taken from perineum and labia.
- Can't touch the hymen as so sensitive
- May try and use saline or different positioning to get view of hymen if needed; can sometime be "closed" (inner surface of donut/ horseshoe stuck together so unable to view edges) so other positions may help.
- Nothing painful. If child getting distressed take time to reassess what is in best interests.

Examination technique

- Post pubertal
  - Observation
  - External swabs.
  - If tolerated swabs from lower part of vagina
  - If able to tolerate speculum swabs from higher part of vagina and cervix.

  - Examination of the hymen more tricky – now fimbriated (folds), so difficult to see injuries.
  - But hopefully no longer sensitive to touch – can use swabs or catheter to look at all the edges if tolerated.

Terminology

- The literature has used a variety of terms to describe findings.
- The RCPCH "Purple book" suggests the following;

Depth of hymenal disruption	Terminology to use when acute	Terminology to use when non-acute
Partial	Laceration	Notch*
Complete to base of hymen	Laceration	Transection

*may be superficial or deep

"The Purple Book"



A publication by the Royal college of Paediatrics and FFLM.



Evidence Base from systematic review



Gives "evidence statements" that allow a balanced, and research based interpretation of the sign we are seeing.



Often there is a lack of evidence/ research



Update due in next few month! Will be online – some parts may be accessible for non medical professionals.



Check the RCPCH webpage.

Hymenal findings - lacerations

- A laceration is "a wound made by blunt force splitting the full thickness of the skin or mucous membrane".
- When acute may be associated with bleeding/ bruising at the edges
- Current evidence states hymenal lacerations were not seen in girls selected for non-abuse
- Hymenal lacerations have been described in 33% of pre pubertal girls with a history of vaginal penetration.
- Hymenal lacerations are seen in 3-19% of post-pubertal girls alleging sexual abuse including penile penetration.

Hymenal findings - Transections

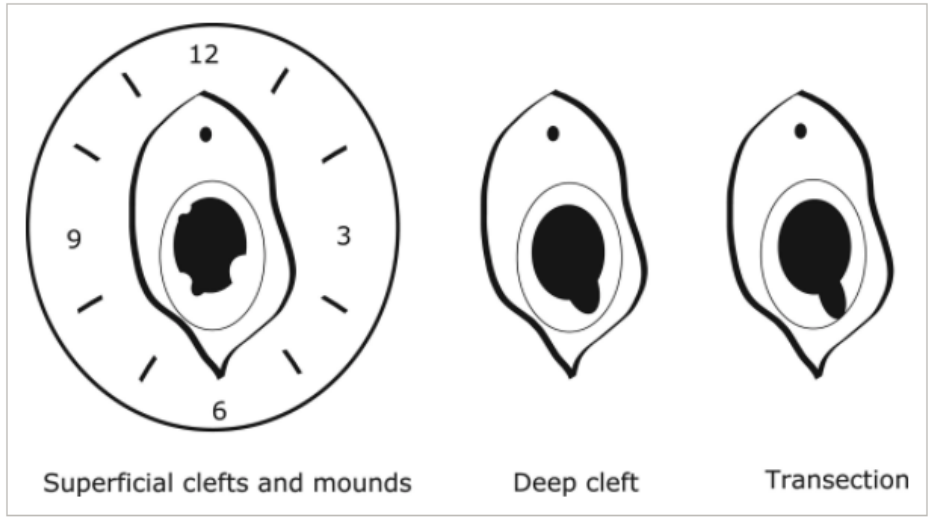


Fig. 4 Open in figure viewer | PowerPoint

Morphological features of the hymen. Left: Mounds and superficial clefts extending to <50% of the hymenal width are non-specific. A clock-face representation is suggested for consistent description of hymen's morphological features. Middle: A deep cleft extends to >50% of the hymenal width. Right: A transection is a complete defect traversing through the entire width of the hymen, to the fossa navicularis.

- "Discontinuity in the hymenal membrane that extends through the width of the hymen to it's base so there appears to be no hymenal tissue remaining at that location." Purple book

Illustration from;

Hymen and virginity: What every paediatrician should know

Dehlia Moussaoui,Jasmine Abdulcadir,Michal Yaron

First published: 08 January 2022

https://doi.org/10.1111/jpc.15887

Hymenal findings - Transections

- A transection is a sign of healed trauma
- Transections have not been described in 195 prepubertal girls selected for non abuse
- Rarely seen in prepubertal girls selected for non abuse (1 case in study but concerns from authors)
- In pubertal girls hymenal transections seen in 3-18% of girls who alleged penile-vaginal penetration
- Hymenal injuries heal rapidly and can leave no residual findings.

What does a normal examination imply?

- Sexual assault can take place and leave NO INJURIES
- Anogenital injuries heal at varying n rates depending on type, location and severity
- Limited data available
- Hymenal injuries – often heal to leave no evidence other than in deeper lacerations (most cases)
- Acute lacerations heal between 7—16 days
- A high proportion of children who have been sexually abused do not have anogenital signs at examination
  - Anal signs in 1-95% studies
  - Genital signs in 9-74% studies
  - More common after penetrative abuse or soon after the abuse occurs
- Legal vs anatomical vagina

- THE ABSENCE OF SIGNS DOES NOT MEAN THAT THE ABUSE DID NOT TAKE PLACE

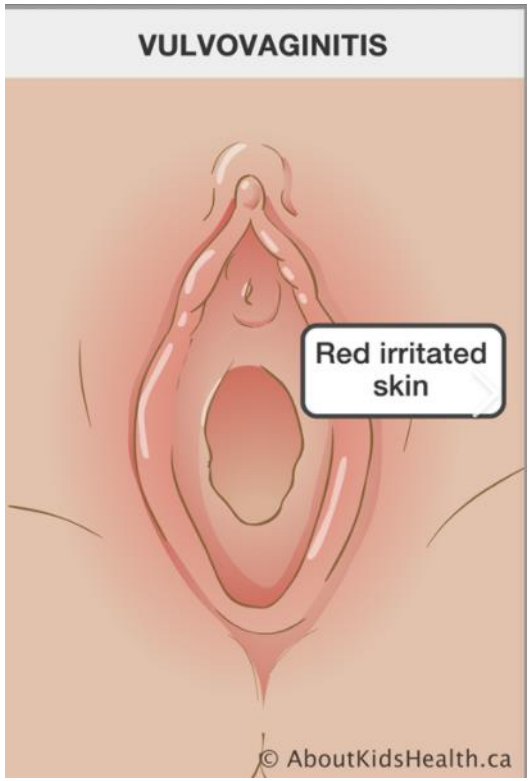
Dermatological conditions

- Common to see children with concerns regarding genital soreness/ bleeding and without a disclosure suggestive of child sexual abuse.
- In the absence of any "red flags" for CSA, the RCPCH suggests that medical causes are ruled out, prior to a SARC CSA medical examination being requested.

Vulvovaginitis

[Vulvovaginitis-BritSPAG-Information-Leaflet-2018.pdf]

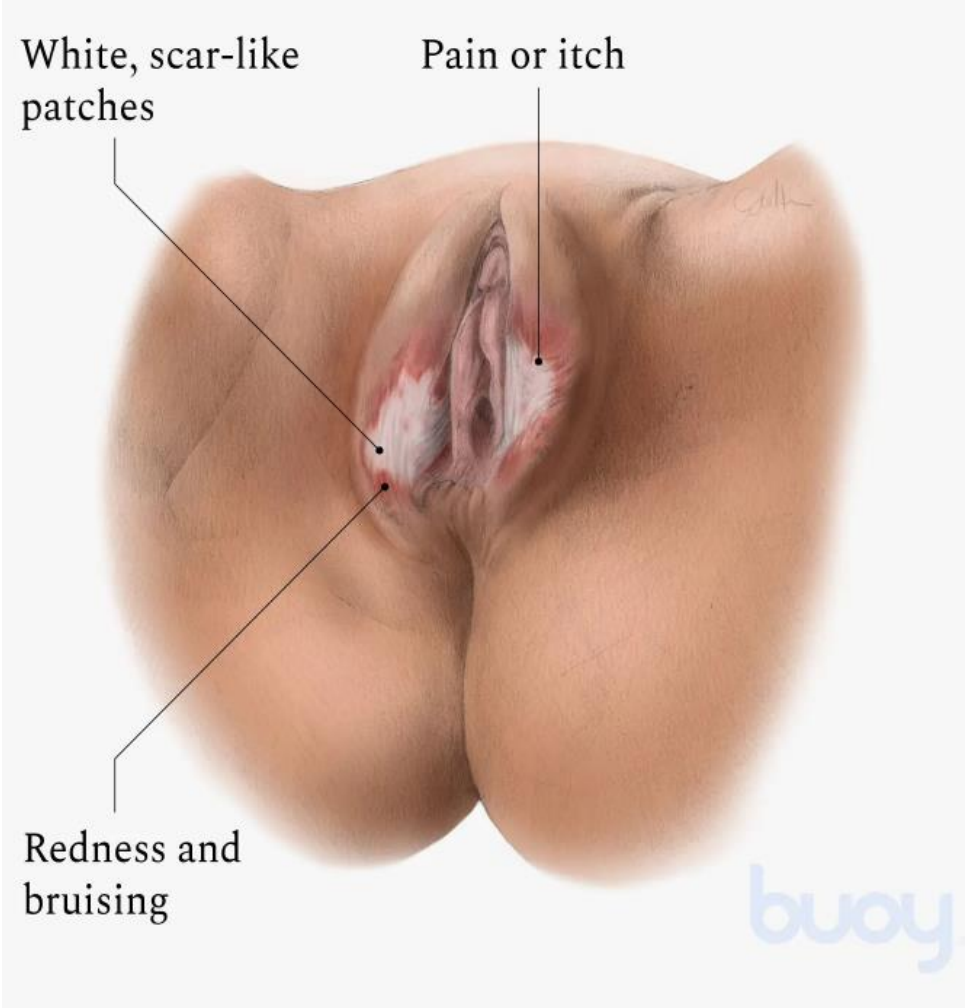
- Common condition
- Often affects ages 2-7
- Causing itching,
  soreness, redness and pain.
- Can have bleeding points
- Treatment – Hygiene measures,
  soap avoidance, emollients
- Avoid constipation



Lichen Sclerosis

[Lichen-Sclerosus-BritSPAG-Information-Leaflet-2018.pdf]

- Inflammatory skin condition.
- Can affect any part of body, but particularly impacts pre pubertal girls and post menopausal women in the genital area
- Causes itching, soreness and bleeding
- Figure of 8 pallor plus ecchymoses
- Treatment with strong steroids, avoidance of irritants and emollients



Anogenital warts

Anogenital warts in pediatric population - PMC (nih.gov)

Human Papilloma Virus (HPV)
Multiple routes of transmission
- Vertical
- Auto innoculation
- Fomites (sharing towels etc
- sexual contact

Some research saying up to 30% of AGW in children due to CSA
Area that have a clear pathways coming through SARC and social services are not seeing that at the moment.



Molluscum

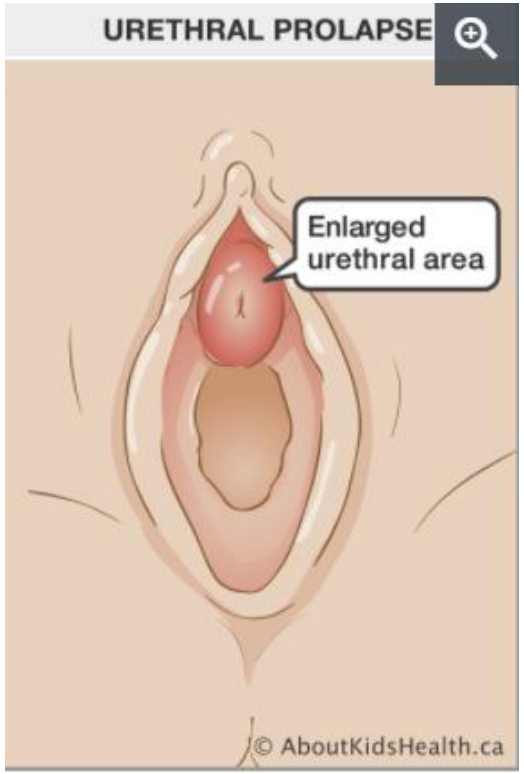
Molluscum contagiosum - NHS (www.nhs.uk)

- Can be present anywhere on body
- Can be sexually transmitted (close contacts)
- Often auto innoculation



Urethral prolapse

- Occurs in pre pubertal children
- Can be exacerbated by constipation or chronic cough
- More common in Black ethnic groups
- Presents with bleeding and annular projection at urethral opening.
- Management by urology – conservative methods include oestrogen creams.



Hormonal causes

- Neonatal withdrawal bleeding
- Precocious Puberty

Foreign bodies

- Usually associated with foul smelling discharge
- May be a suggestive history
- May required Examination Under Anaethesia

Others

- Straddle injuries - as with all injuries and bruising in children, does the injuries match the history provided?
- Rare – genital malignancies. Persistent unexplained PV bleeding requires further assessment.

Take home points

- Hymenal appearances change over time in the same child.
- Penetrative assaults can occur and leave no injury.
- Injuries are best seen early.
- Consistent use of terms required, along with use of the evidence base.
- Clinical examination is only a small "jigsaw piece" where there are concerns regarding CSA. The voice of the child should always be listened to.

References and further reading

- The Physical Signs of Child sexual abuse; an evidence based review and guidance for best practice. May 2015 (currently being updated)
- Child Abuse and Neglect; diagnosis, Treatment and Evidence. Carole Jenny 2011.
- Medical examinations - CSA Centre
- The CSA Centre's Evaluation Fund: A reflection
- The little tissue that couldn’t – dispelling myths about the Hymen’s role in determining sexual history and assault | Reproductive Health | Full Text (biomedcentral.com)



Any questions?