Introduction

This is an educational and pictorial competency training package for the diagnosis and management of Molluscum Contagiosum (MC). MC is a common condition seen within sexual health centres, it is easily diagnosed and treated.

The information and assessment represents the level of educational preparation and supervised clinical practice required by nurses at Melbourne Sexual Health Centre (MSHC) to competently and confidently perform MC diagnosis, treatment and management.

The information contained in this material is derived from a critical analysis of a wide range of authoritative evidence. Any treatment decisions based on this information should be made in the context of the clinical circumstances of each client.

Principles to guide nursing scope of practice decisions

The following principles help guide MSHC nurses as they expand their scope of practice to include the management of new conditions and to encourage accountable and collaborative practice. ¹

Principle 1:
*The primary motivation for any decision about a care activity is to meet the consumers health needs or to enhance outcomes.*

Principle 2:
*Nurses are accountable for making professional judgements about when an activity is beyond their own scope of practice and for initiating consultation and referral to other members of the health care team.*

Principle 3:
*Nurses are accountable for making decisions about who is the most appropriate person to perform the clinical activity.*

Principle 4:
*Nurses practice decisions are best made in a collaborative context of planning, risk management and evaluation.*
**Target population**
Clients presenting with Molluscum Contagiosum (MC)

**Exclusion Criteria**
- Clients with pre-existing dermatological conditions
- Clients with MC lesions on the face
- Clients with immunosuppressive illness including diabetes and Human Immunodeficiency Virus (HIV)
- Clients who are pregnant or breast feeding
- Clients with ongoing symptoms including multiple lesions of MC
- Clients with secondary bacterial infection

**Objectives and anticipated outcomes**
Provide diagnosis and treatment for clients with MC
Identification of individual STI risk and provision of appropriate screening
Identify public health risks to control infections by:
- Provision of STI education and information
- Identification and exploration of sexual risk taking behaviours
- Partner notification and treatment as required

**Definition and History**
MC is a benign papular condition of the skin. The causative agent is Molluscum Contagiosum virus (MCV). Although most common as a childhood infection, MC is usually sexually transmitted in young adults. Non sexual transmission can also occur.¹⁻³ MC is part of the poxvirus family and with the eradication of smallpox remains the only human specific poxvirus. The virus is passed on by direct skin to skin contact and can affect any part of the body ¹

**Biology**
Many pox viruses encode proteins that help evade host immune defences, this accounts for the persistent duration of the MC lesions. The infection is restricted to the epidermis and this location helps the virus evade immune response and subsequent clearance.⁴⁻⁵ Four genomic subtypes have been identified for MC. The most common types seen in adults are MCV 1 and MCV 2. MCV 2 is seen more commonly in adults than in children. Incubation period is between two to three months (1 week to 6 months).⁵

**Epidemiology**
As MCV is self limiting and causes few complications many people do not seek treatment resulting in minimal population data being available. UK studies report an annual Incidence of MC for all ages of 2.4/1000.⁵ People who are HIV positive have estimated prevalence rates from 1.7 to 4%. MCV 1 occurs more commonly than MCV 2. There is no association between subtype and anatomical site.⁵

**Transmission**
Transmission occurs primarily by skin to skin contact and is enhanced by warmth and humidity with lesions usually occurs on the genital region.¹⁻³ Boise Fomite transmission includes baths, gym equipment, swimming pools and towels.

**Sexual Contact**
The location of MC in the genital areas of sexually active adults supports the sexual transmission of the virus. The peak age of occurrence of MC is 20-29 years which is similar to other sexually transmitted infections.⁸
Non Sexual Contact
The non sexual form occurs in children and usually involves the face, trunk, and upper extremities. Infection has been associated with procedures causing skin trauma, shaving, waxing, tattooing and piercing. \(^9,10\)

Pathogenesis, Pathology Immunology
MC has a limited range of tissue infectivity. The infection only occurs in the epidermis and dissemination does not occur as in other viruses. \(^5,10\) MC has a predilection for follicular epithelium and is uncommon on non hair bearing sites. Transmission is a result of skin inoculation following microscopic abrasions. Further spread is thought to occur though autoinoculation with infected sites. Reactivation of subclinical infection is seen in clients with immunosuppression. \(^5,8,9,10\)

Clinical Manifestations
The typical lesion is a papule with central umbilication and in HIV infection lesions may be more widespread and atypical. \(^2,3,4\)

Lesions consist of focal areas of hyperplastic epidermis surrounding cyst shaped lobules that are filled with keratinized debris and degenerating molluscum bodies. \(^5\)

Normally clients present with 10-20 lesions. The duration of infection for untreated MC is reported to be 2 years (range; 2 weeks to 4 years). Individual lesions usually resolve within 2 months. Recurrences after clearance occur in 15-35% of cases, often it is difficult to distinguish between a new infection or an exacerbation of subclinical infection in clients representing after MC clearance. \(^4\)

Investigations
There is no specific laboratory tests required to diagnose MC at MSHC. \(^7\)

Diagnosis
Diagnosis is based on the characteristic clinical appearance of MC observed during the genital examination. \(^7,8\)

The use of magnification may assist in the diagnosis of MC. Normal variations in the genital area include pearly penile papules, parafrenular glands, normal glands, sebaceous cysts and fordyce spots. These variations are often found on the penile shaft, glands and the vestibular area of the vulva. \(^9\)

It is important to remind clients that recent skin changes, colour variations and new lumps on genital skin will continue over the life span and are generally not clinically significant.
In Summary

Molluscum Contagiosum is caused by a pox virus
The virus is passed on by direct skin to skin contact
Sexual contact may lead to the appearance of lesions in the genital area
Incubation period is between two to three months (1 week to 6 months)
MC are pearly papular umbilicated lesions
Complications occur in the immunocompromised, lesions may be larger and more widely spread
Secondary infection may be present
Diagnosis is based on characteristic clinical appearance
Spontaneous regression of lesions is common
Treatment is cosmetic and aims to reduce lesion duration and further spread
Cryotherapy is the recommended treatment
**Case Study**

A 23 year old male attends MSHC with new lumps on the shaft of his penis. They have been present for 2 weeks. He is currently in a relationship of 2 years duration. His female partner has no signs or symptoms. He has no allergies to medications and is currently taking Sertraline 50 mg per day for depression which was diagnosed in 2008. This is his first sexual health check up. On examination you see numerous small lumps on the shaft of his penis. They are painless raised lumps.

**Clinical Manifestations**

**Clinical Questions**

1. What characteristics are typical of MC lesions?

2. How would you explain this condition to the client?

3. What treatment options would you discuss with this client?

4. What would you advise regarding sexual contact with his partner?

5. The client reveals that he is also a diabetic, how would this change your management?

6. What would the client expect to happen to the lesions over the next week after liquid nitrogen treatment?

7. When should the client return for further treatment?
Clinical Supervision

Competency is assessed by successful completion of the case study questions and by observed and supervised practice for a total of four MC consultations. Following up clients is highly recommended to improve learning outcomes and facilitate continuity of care.

On completion of this competency nurses will demonstrate competency and confidence in the diagnosis, treatment and management of Molluscum Contagiosum.

| Explain the infection, transmission and clinical manifestations of MC | Discussed | Demonstrated |
| Recognise and accurately diagnose MC | | |
| Accurately list differential diagnosis | | |
| Identify common anatomical variations | | |
| Describe MC presentations which would require referral | | |
| Describe appropriate treatment options | | |
| Demonstrate competency in liquid nitrogen treatment | | |
| Discuss evaluation of treatment and further management | | |

Clinical Log

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Molluscum Contagiosum Competency Package for Nurses

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