#### **AUSTRALASIAN COLLEGE OF PHLEBOLOGY**

#### **CLINICAL PROCEDURES**

## **CP - 'Microsclerotherapy - Clinical procedure'**

#### 1 PURPOSE

This procedure summarises the actions required to assess abnormal superficial venous networks using clinical examination and Duplex/Doppler ultrasound, and to them using injected sclerosants. It is a guideline of procedural notes for the treatment covered by the ACP Microsclerotherapy Standard 'Assess and treat abnormal superficial venous network with injected sclerosants'.

#### 2 SCOPE

This procedure is to be followed by all trainee and ACP trainee and certified practitioners delivering this service to patients. Assessment of competence in following this procedure is measured by checking the practitioner as s/he treats the patient against the criteria specified in the ACP Microsclerotherapy Standard.

#### 3 REFERENCES

As per ACP Microsclerotherapy Standard.

#### 4 DEFINITIONS/ACRONYMS

As per ACP Microsclerotherapy Standard.

#### 5 PROCEDURE AND SPECIAL NOTES

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1. Information regarding venous incompetence, diagnosis and microsclerotherapy treatment.  1. Information regarding venous incompetence, diagnosis and microsclerotherapy treatment.  1. Explain that a clinical examination needs to be followed by Duplex/Doppler aided diagnosis to rule out underlying venous incompetence as a cause of the patients presenting complaint and to confirm the suitability of microsclerotherapy to treat the patients needs.  2. Identify the problem areas and concerns of the patient and explain the procedure.  3. Inform the patient that the risks of microsclerotherapy include the following:  • localized inflammation or pain indicated by redness, tenderness or swelling in the specific region of treatment – treated by paracetamol or non steroidal anti-inflammatories eg ibuprofen  • allergic skin eruptions – treat with antihistamines  • telangiectatic matting in up to 10% of cases. If this does not naturally resolve over 6 months further treatment may be required.  • hyperpigmentation caused by haemosiderin +/-melanin deposition in the skin. Resolves in 6-12 months although rarely can persist longer. If not improving look for underlying incompetent vessels.
<ul> <li>ulceration – apply appropriate dressings</li> <li>anaphylaxis – rare. Treat immediately with intramuscular adrenaline, oxygen and other supportive measures including antihistamines +/-corticosteroids.</li> <li>Blood trapping giving rise to tender raised lumps in treated veins which can be expected to resolve over 3-6 months.         <ul> <li>Treated by aspiration or expression if necessary.</li> </ul> </li> <li>Visual disturbances and migraine in &lt; 1 % of cases. Await spontaneous resolution and investigate if this does not settle.</li> <li>Cough and chest disorders - rare.</li> </ul>

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<ul> <li>Rare possible reactions such as DVT/ Pulmonary embolism in &lt; 0.02% of cases – treat DVT/pulmonary embolism by hospitalisation or outpatient treatment for further investigation and treatment with anti-coagulants.</li> <li>Rare nerve injury which typically resolves over several months.</li> <li>Risk of arterial or arteriolar injection in &lt;0.1% cases with severe skin and muscle trauma and possible amputation.</li> <li>Risk of arterial or arteriolar injection in &lt;0.1% cases with severe skin and muscle trauma and possible</li> </ul>
<ul> <li>amputation.</li> <li>4. Explain the following clinically indicated treatment options and their implications: <ul> <li>No treatment e.g. the patient may have no symptoms, trivial telangiectases, but just needs reassurance, and advice should include a warning that the situation could deteriorate.</li> <li>Wearing support hosiery may reduce any associated symptoms.</li> <li>Treatment of underlying superficial venous incompetence with UGS, EVLA or surgery.</li> <li>Microsclerotherapy</li> <li>External Laser treatment</li> </ul> </li> </ul>

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1.2 Patient assessment, initial consultation records	'Informed Consent'	The patient may be asked to complete a health questionnaire prior to seeing the physician, and the doctor should then go through the completed questionnaire to confirm the details given.
		Previous vein treatment and any complications must be elicited and documented. Patients who have had previous vein treatment must be referred for Duplex/Doppler ultrasound mapping prior to microsclerotherapy.
		Any history of miscarriage and other relevant gynaecological history with particular emphasis on pelvic congestion syndrome is taken and documented.
		Appropriate psychological history is elicited noting any anxiety disorders such as needle phobia and claustrophobia.
		All visual secondary complications such as varicose eczema, venous ulceration, chronic venous hypertension, and lipodermatosclerosis are identified during careful clinical examination.
		6. With the patient standing the venous system of both legs from groin to ankle is examined. A continuous wave Doppler is used to assess the superficial venous network. During the examination venous blood flow is augmented by manual muscle compression or the Valsalva manoeuvre.
		7. Arterial supply is assessed digitally and, if necessary, by ankle/branchial index.
		If there are symptoms, or clinical findings suggestive of arterial disease appropriate referral or investigation is required before treatment of the venous disease.

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<ol> <li>Identify any obvious vascular changes around the medial aspect of the ankle with corona phlebectica indicative of chronic venoushypertension. Patienst presenting these signs must be referred for duplex ultrasound assessment prior to microsclerotherapy.</li> </ol>
10. Signs of an extensive broad distribution of an abnormal superficial venous network suggest underlying venous incompetence and patients must be referred for a Duplex ultrasound assessment.
11. Discuss your clinical findings with the patient and if diagnostic results eliminate underlying venous incompetence and there are no other diagnostic results pending, accept the patient for microsclerotherapy treatment.
12. If UGS is indicated as a likely treatment for the patient's superficial venous incompetence refer to an approved ACP Phlebologist.
13. Blood tests are considered.
14. Photographs must be taken before treatment.
15. Give patient a written estimate of cost for the anticipated course of treatments, but advise it will be confirmed post ultrasound diagnosis.
16. Send a letter to the patients general practitioner outlining your findings and treatment plan.

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2 ESTABLISH AND AGREE TREATMENT PLAN	'Informed Consent'	Discuss findings from ultrasound diagnosis where appropriate and recommend a clinically appropriate treatment plan.
		Update initial estimate of quote if diagnostic findings indicate     a different treatment plan.
		3. Give the patient other treatment options and/or referral if you are unable to deliver the most appropriate treatment for his/her condition.
		Other treatment options:
		<ul> <li>No treatment e.g. the patient may have no symptoms, trivial telangiectases, but just needs reassurance, and advice should include a warning that the situation could deteriorate.</li> </ul>
		<ul> <li>Wearing support hosiery may reduce any associated symptoms.</li> </ul>
		<ul> <li>Treatment of underlying superficial venous incompetence with UGS, EVLA or surgery.</li> </ul>
		Microsclerotherapy
		External Laser treatment.
		Class 1 compression hosiery
		Laser treatment
		<ol> <li>Having agreed that microsclerotherapy is the preferred treatment, both practitioner and patient must sign the informed consent document.</li> </ol>
		5. Instructions are given for the pre-operative requirements and post-operative requirements appropriate to the treatment method agreed.

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2 IN IECT VEING WITH	(Infortion		The control of the co
3. INJECT VEINS WITH SCLEROSANT	'Infection control' and		The patient is usually supine as the practitioner prefers.
'Management of waste and Hazardous Substances'	2.	The area to be treated must be clean. It may be wiped with an alcohol swab or cleanser and allowed to air dry.	
	3.	In preparing the liquid for injection clean the rubber stopper of multidose vials using an alcohol swab, and ensure aseptic technique is followed.	
		4.	To avoid cross contamination a sterile needle and syringe are used for each penetration of multidose vials of sclerosant (after wiping with an alcohol swab) to aspirate the contents. Multidose vials should be checked for an expiry date.
		5.	Change the needle to a new 30 gauge ½ inch needle to inject spider veins. A 27g or 30g needle can be used for reticular veins
		6.	Needles are discarded into "sharps bins" immediately after use. Needles should not be recapped in this process.
		7.	Maximum care must be taken to avoid needlstick injury to practitioner and assistant staff. In the event of needle stick injury the procedure must be terminated and the appropriate needlestick injury protocol followed.
		8.	Concentration of the sclerosant injected must be appropriate to the size of the vessel and the degree of flow in the vessel and must be in the following ranges:
			<ul> <li>Sodium tetradecyl sulphate (STS) 0.1 – 0.75% The maximum upper limit per person per treatment day is 4 mls of 3% STS</li> </ul>
			<ul> <li>Polidocanol (Aethoxysclerol or Sclerovein) 0.25 – 1.5%         The maximum upper limit of polidocanol is 2mg/kg patient body weight per treatment day because of potential for local anaesthetic toxicity.     </li> </ul>
		9.	Compression hosiery appropriate to the patient and the sclerosant treatment are applied immediately after treatment and before mobilisation.

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# 4. PROVIDE POST TREATMENT ADVICE TO PATIENT AND RECORD TREATMENT DETAILS

- 1. Patient is advised that s/he will be required to walk immediately after treatment and for a minimum of 30 minutes per day during treatment and for 2 weeks after the treatment course.
- 2. Patient is advised to avoid strain or strenuous activity for 7 days post treatment.
- 3. Ensure the patient understands all of the following symptoms of concern, and knows when to contact the practitioner:
  - Painful swollen limbs
  - Chest pain
  - Shortness of breath
  - Migraines
  - Cough
  - Visual disturbance
  - Weakness in arms or legs
  - Difficulty speaking
  - Sensory deficit
  - Redness, heat or localised swelling over the treated vessel
- 4. Treatment records must include:
  - Sclerosant used and its supplied concentration
  - Sclerosant type, dosage or injected concentration
  - Total volume injected in treated limb
  - Accurate description of veins treated and location i.e. saphenous trunks, tributaries and/or perforators
  - Compression hosiery fitted, size and class and recommended time of application.
  - Patient instructions given
  - Future treatments or Follow up indicated
  - Any adverse/unexpected events and/or interventions.
  - Follow up appointment given within 6 weeks.
  - Post treatment assessment of degree of vein removal.
  - Whether further treatment is indicated/offered after the post treatment assessment including the type of treatment, or whether the treatment plan has been completed.
  - Any medication given?
- 5. Assessment records must include success of treatment and a description of degree of sclerosis of all relevant incompetent vessels.
- 6. Follow up is suggested for 3 month review and further treatment as indicated.

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## 6 REVIEW AND AUDIT OF THIS PROCEDURE

This procedure will be reviewed annually by the ACP Education Committee. Compliance with this procedure will be assessed against the ACP standard 'Microsclerotherapy'.