UBT446

Enhance appearance using scalp micropigmentation techniques

ASSIGNMENT 5

Scars and SMP suitability

Student name	
Tutor	
Date issued	
Date completed	

Aim

To demonstrate knowledge of scar formation, scar classifications and terminology, hair-transplant scars, clinical assessment and the factors determining whether scar tissue may be suitable for scalp micropigmentation.

Instructions

Complete all sections. Task 1 requires one number for each term. Task 2 requires clear professional explanations. Task 3 requires one answer for each question.

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Date	

Task 1 - Match the terms with the descriptions

1. Scar formation

Match each term with the correct description. Write the correct number in the answer column.

Term	Answer
A. Scar	____
B. Inflammation	____
C. Fibroblast	____
D. Collagen	____
E. Remodelling	____
F. Maturation	____
G. Tissue repair	____

Descriptions

1. The reorganisation of collagen and connective tissue during later healing.
2. A connective-tissue cell involved in producing collagen and extracellular matrix.
3. The biological process through which damaged tissue is restored or replaced.
4. Fibrous tissue that replaces normal tissue following injury.
5. A structural protein that contributes strength to healing tissue.
6. The gradual development of a scar towards a more stable appearance.
7. A biological response after tissue injury that contributes to repair but may also influence abnormal scarring when prolonged or dysregulated.

Task 1 - Match the terms with the descriptions

2. Scar characteristics and sensation

Match each term with the correct description. Write the correct number in the answer column.

Term	Answer
A. Colour	____
B. Texture	____
C. Thickness and contour	____
D. Pliability	____
E. Vascularity	____
F. Surface integrity	____
G. Altered tactile sensation	____

Descriptions

1. The flexibility and mobility of scar tissue.
2. The shape, depth and level of the scar relative to surrounding tissue.
3. The visible pigmentation or redness of scar tissue.
4. Reduced or changed ability to detect touch in or around a scar or previous transplant area.
5. The feel and surface quality of the scar compared with surrounding skin.
6. Whether the surface is intact and free from breakdown, ulceration or open areas.
7. The amount or visibility of blood supply and vascular activity within the scar.

Task 1 - Match the terms with the descriptions

3. Current scar patterns

Match each term with the correct description. Write the correct number in the answer column.

Term	Answer
A. Flat mature scar	____
B. Hypertrophic scar	____
C. Keloid scar	____
D. Atrophic scar	____
E. Contracture scar	____
F. Superficial macular scar	____
G. Linear scar	____

Descriptions

1. A long narrow scar pattern, including the donor scar commonly associated with strip surgery.
2. A stable scar that is generally level with surrounding skin.
3. A depressed or thinned scar lying below surrounding skin level.
4. A raised scar that remains within the boundaries of the original injury.
5. A flat superficial area of altered colour or texture; examples include scars following burns, surgery, accidents, insect bites, acne or chickenpox.
6. An excessive raised scar that extends beyond the original wound boundaries.
7. A scar that tightens tissue and may restrict movement or distort the surface.

Task 1 - Match the terms with the descriptions

4. Deep dermal scar descriptions

Match each term with the correct description. Write the correct number in the answer column.

Term	Answer
A. Linear hypertrophic scar	____
B. Widespread hypertrophic scar	____
C. Rolling atrophic scar	____
D. Boxcar atrophic scar	____
E. Ice-pick atrophic scar	____
F. Minor keloid	____
G. Major keloid	____

Descriptions

1. A broad raised scar remaining within the original injured area.
2. A narrow deep atrophic depression with steep sides and a small surface opening.
3. A more extensive keloid; the term is descriptive rather than a universal modern staging system and keloid scarring prevents SMP.
4. A tethered atrophic scar producing a sloping or wave-like surface depression.
5. A raised linear scar that remains within the original wound boundaries.
6. A sharply defined round or oval atrophic depression with relatively vertical edges.
7. A smaller keloid; size does not make keloid tissue suitable for SMP.

Task 1 - Match the terms with the descriptions

5. Hair-transplant scars

Match each term with the correct description. Write the correct number in the answer column.

Term	Answer
A. Follicular unit transplantation (FUT or strip surgery)	____
B. Follicular unit excision (FUE)	____
C. Linear donor scar	____
D. Multiple small round donor scars (dot scars)	____
E. Donor area	____
F. Recipient area	____
G. Overharvested donor area	____

Descriptions

1. The scalp region into which transplanted follicular-unit grafts are placed.
2. A long narrow scar expected after removal and closure of a donor strip.
3. Surgical removal of individual follicular units using small punches; the current ISHRS term is excision.
4. An area showing excessive follicular-unit removal, reduced density and potentially more visible donor scarring.
5. Multiple small circular scars that may remain after individual punch excisions.
6. The scalp region from which follicular units are harvested.
7. A strip-harvesting method in which donor tissue is removed and dissected into follicular-unit grafts.

Task 1 - Match the terms with the descriptions

6. Scar stability and SMP suitability

Match each term with the correct description. Write the correct number in the answer column.

Term	Answer
A. Stable mature scar	____
B. Immature scar	____
C. Active change	____
D. Persistent redness	____
E. Tenderness or itching	____
F. Test area	____
G. Medical assessment	____

Descriptions

1. A scar still developing and not yet sufficiently matured for cosmetic camouflage.
2. Assessment by an appropriate healthcare professional when findings are uncertain, unexplained or concerning.
3. A scar showing no significant recent change, active symptoms or surface breakdown.
4. A small controlled treatment used to observe healing and pigment behaviour before wider treatment; it cannot guarantee the complete result.
5. Symptoms that may indicate continuing activity, altered sensation or another condition requiring assessment.
6. Redness that remains prominent and may indicate ongoing vascular or inflammatory activity.
7. Continuing alteration in size, colour, texture, contour or symptoms.

Task 1 - Match the terms with the descriptions

7. Contraindications and caution findings

Match each term with the correct description. Write the correct number in the answer column.

Term	Answer
A. Open wound	____
B. Active infection	____
C. Active inflammation	____
D. Keloid scarring	____
E. Recent surgery	____
F. Unexplained change	____
G. Hypertrophic or atrophic scar requiring caution	____

Descriptions

1. A condition requiring treatment to stop or be postponed and appropriate medical assessment before any cosmetic procedure.
2. A scar pattern that requires individual assessment of depth, activity, texture and suitability; keloid tissue must not be treated.
3. A procedure performed too recently for healing, stability and maturation to be confirmed.
4. Ongoing redness, heat, swelling, pain or other signs of active tissue response.
5. A break in skin integrity that must not be treated with SMP.
6. A contraindication that prevents SMP because further trauma may stimulate additional abnormal scar formation.
7. A new or unexplained alteration requiring medical assessment before cosmetic treatment.

Task 1 - Match the terms with the descriptions

8. Treatment planning, camouflage and referral

Match each term with the correct description. Write the correct number in the answer column.

Term	Answer
A. Consultation	____
B. Clinical photography	____
C. Conservative approach	____
D. Session spacing	____
E. Informed consent	____
F. Referral	____
G. Scar camouflage	____

Descriptions

1. Standardised images used to document baseline appearance, treatment and healed progression.
2. The client's documented agreement after receiving relevant information about benefits, limitations, risks and alternatives.
3. Direction to an appropriate medical or surgical professional when the scar requires diagnosis or clinical assessment.
4. A cautious method using controlled density, minimal unnecessary trauma and gradual build-up in suitable scar tissue.
5. Discussion and assessment used to establish history, previous surgery, altered sensation, expectations and suitability.
6. The cosmetic reduction of visible contrast between scar tissue and the surrounding scalp. SMP must not be presented as medical scar treatment or guaranteed structural correction.
7. Allowing sufficient time between sessions to assess healing, tissue response and pigment retention.

Task 2 - Answer the questions

Scars and SMP suitability

1. Describe how scar tissue forms following injury and explain the roles of inflammation, fibroblasts, collagen and tissue remodelling.

2. Explain the difference between a mature stable scar and a scar that is still active, immature or changing.

3. Describe the scar characteristics that should be assessed before considering SMP, including colour, contour, texture, vascularity, surface integrity and tactile sensation.

Task 2 - Answer the questions

Scars and SMP suitability

4. Explain the differences between hypertrophic, keloid and atrophic scars and why these differences matter to an SMP practitioner.

5. Describe superficial macular, linear, rolling, boxcar and ice-pick scar patterns. Explain the differences between linear hypertrophic, widespread hypertrophic, minor keloid and major keloid scars.

6. Describe the donor scars associated with FUT strip surgery and follicular unit excision (FUE).

Task 2 - Answer the questions

Scars and SMP suitability

7. Which signs, symptoms or history findings indicate that SMP should be postponed, declined or referred for medical assessment?

8. Why do scar age and time since surgery alone not confirm suitability for SMP?

9. Why may implantation, pigment retention and healed appearance be less predictable in scar tissue than in unaffected scalp skin?

Task 2 - Answer the questions

Scars and SMP suitability

10. Explain the purpose and limitations of a conservative approach, session spacing and a test area when treating suitable scar tissue.

11. Explain realistic expectations and limitations of SMP scar camouflage.

12. Explain when referral is appropriate and why diagnosis or medical treatment of abnormal scar behaviour is outside the SMP practitioner's scope.

Task 3 - Multiple-choice knowledge test

Select one answer for each question.

1. What is a scar?
A. Fibrous tissue replacing normal tissue after injury
B. A temporary skin colour only
C. A hair-growth disorder
D. A type of pigment
Answer: _____

2. Which cell is strongly involved in collagen production during scar formation?
A. Melanocyte
B. Fibroblast
C. Platelet only
D. Sebocyte
Answer: _____

3. What is collagen?
A. A pigment
B. A disinfectant
C. A structural protein in connective tissue
D. A hair-loss classification
Answer: _____

4. What occurs during scar remodelling?
A. The wound becomes infected
B. All collagen disappears
C. Hair follicles multiply
D. Collagen and connective tissue reorganise
Answer: _____

5. What does scar maturation describe?
A. Gradual development towards a more stable scar
B. Immediate pigment implantation
C. Formation of a new hair shaft
D. Permanent inflammation
Answer: _____

Task 3 - Multiple-choice knowledge test

Select one answer for each question.

6. Which assessment feature describes how flexible and mobile a scar is?
A. Vascularity
B. Pliability
C. Contour
D. Phototype
Answer: _____

7. What does vascularity refer to in scar assessment?
A. The number of hairs
B. The pigment brand
C. The blood supply or visible vascular activity
D. The client's age
Answer: _____

8. Which feature describes whether a scar is raised or depressed?
A. Undertone
B. SPF
C. Hair calibre
D. Contour
Answer: _____

9. Why is surface integrity important before SMP?
A. The skin should be intact and healthy enough for treatment
B. Broken skin improves retention
C. It determines hair colour
D. It replaces consultation
Answer: _____

10. Which finding may suggest a scar is still active?
A. Stable colour for a long period
B. Continuing redness or change
C. No symptoms
D. Unchanged texture
Answer: _____

Task 3 - Multiple-choice knowledge test

Select one answer for each question.

11. What is a hypertrophic scar?
A. A depressed scar
B. A normal hairline
C. A raised scar remaining within the original wound boundaries
D. A scar extending far beyond every wound
Answer: _____

12. What is a keloid scar?
A. A flat mature scar
B. A small FUE dot only
C. A temporary crust
D. Excessive raised scar tissue that may extend beyond the original wound
Answer: _____

13. What is an atrophic scar?
A. A depressed or thinned scar
B. A raised vascular scar only
C. An open wound
D. A normal scalp fold
Answer: _____

14. Why is a known keloid tendency relevant to SMP?
A. It guarantees good pigment retention
B. SMP should not be performed because additional trauma may stimulate abnormal scar formation
C. It removes need for consent
D. It means the scar is mature
Answer: _____

15. Which group contains recognised atrophic scar patterns named in UBT446?
A. Linear hypertrophic and widespread hypertrophic scars
B. Minor and major keloids only
C. Rolling, boxcar and ice-pick scars
D. Erythema, oedema and crusting
Answer: _____

Task 3 - Multiple-choice knowledge test

Select one answer for each question.

16. Which hair-transplant method commonly produces a linear donor scar?
A. FUE only
B. SMP
C. PRP
D. FUT strip harvesting
Answer: _____

17. What is the current ISHRS meaning of FUE?

A. Follicular unit excision
B. Follicular unit enlargement
C. Follicular unit epidermis
D. Follicular unit transplantation
Answer: _____

18. What is the donor area?
A. The area where pigment is mixed
B. The area from which hair follicles are harvested
C. The client's face only
D. The aftercare area
Answer: _____

19. What is the purpose of SMP scar camouflage?
A. To regrow follicles inside every scar
B. To medically treat scar disease
C. To reduce visible contrast between scar tissue and surrounding scalp
D. To remove scar tissue
Answer: _____

20. Which statement about SMP scar camouflage is correct?

A. SMP removes all fibrous scar tissue
B. SMP guarantees normal sensation in the scar
C. SMP causes every follicle within the scar to regrow
D. SMP may reduce visible contrast, but it must not be presented as guaranteed medical correction of the scar
Answer: _____

Task 3 - Multiple-choice knowledge test

Select one answer for each question.

21. What is a stable scar?
A. A scar showing no significant recent change or concerning symptoms
B. Any scar older than one month
C. Any red scar
D. Any surgical scar
Answer: _____

22. What is a superficial macular scar?
A. A keloid extending beyond the wound
B. A flat superficial area of altered colour or texture
C. An open infected wound
D. A deep narrow ice-pick depression
Answer: _____

23. Why does scar age alone not prove suitability?
A. All scars mature at exactly the same rate
B. Age determines pigment colour only
C. Biological behaviour and clinical appearance also matter
D. Old scars cannot be treated
Answer: _____

24. Why must tactile sensation be assessed over scars and previous hair-transplant areas?
A. Reduced sensation proves the scar is mature
B. Normal sensation guarantees even retention
C. Sensation determines pigment colour
D. Sensation may be reduced or altered, affecting client feedback and safe treatment monitoring
Answer: _____

25. What should happen with an unexplained changing scar?
A. Appropriate medical assessment before SMP
B. Immediate camouflage
C. Repeated needling
D. Ignore the change
Answer: _____

Task 3 - Multiple-choice knowledge test

Select one answer for each question.

26. Which factor can affect visual scar camouflage?
A. Only the client's height
B. Colour contrast with surrounding scalp
C. Eye colour only
D. Hand dominance
Answer: _____

27. Why is scar texture relevant?
A. It determines legal consent
B. It changes the client's blood group
C. It may affect implantation and the visual result
D. It replaces patch testing
Answer: _____

28. Why is surrounding hair density relevant?
A. It diagnoses infection
B. It determines scar age
C. It prevents healing
D. It influences camouflage design and visible contrast
Answer: _____

29. What is a test area used for?
A. To assess skin response and pigment behaviour before wider treatment
B. To guarantee the final result
C. To remove the scar
D. To diagnose disease
Answer: _____

30. Why should scar SMP often be approached conservatively?
A. Maximum density is always required first
B. Scar tissue can respond and retain pigment less predictably
C. Scar tissue never changes
D. It eliminates the need for review
Answer: _____

Task 3 - Multiple-choice knowledge test

Select one answer for each question.

31. Which finding means SMP should not be performed?
A. A stable intact mature scar
B. Realistic expectations
C. An open wound
D. Documented consultation
Answer: _____

32. Which condition requires SMP to be postponed and appropriate medical assessment?
A. A stable intact mature scar
B. A realistic treatment objective
C. Long-term unchanged colour
D. Active infection
Answer: _____

33. Why is active inflammation a concern?
A. Further trauma may worsen the tissue response
B. It guarantees pigment retention
C. It proves the scar is mature
D. It has no relevance
Answer: _____

34. What is an appropriate response to recent surgery?
A. Treat immediately
B. Allow adequate healing and maturation before considering scar camouflage
C. Increase needle depth
D. Use maximum density
Answer: _____

35. What should be done if scar behaviour is outside the practitioner's scope?
A. Diagnose it personally
B. Prescribe treatment
C. Refer appropriately
D. Ignore it
Answer: _____

Task 3 - Multiple-choice knowledge test

Select one answer for each question.

36. What is the role of clinical photography?
A. To replace consent
B. To diagnose all scars
C. To select insurance
D. To document appearance and progression
Answer: _____

37. What should a scar treatment plan include?
A. Objectives, technique, session planning and review
B. Only pigment colour
C. Only client age
D. Only the machine brand
Answer: _____

38. Why are realistic expectations important?
A. SMP always removes texture
B. SMP can camouflage contrast but cannot restore normal scar tissue
C. Every scar heals identically
D. One session guarantees invisibility
Answer: _____

39. What should informed consent include?
A. A guarantee of perfection
B. A medical diagnosis
C. Relevant benefits, limitations and risks
D. No discussion of limitations
Answer: _____

40. Why may scar tissue retain pigment differently?
A. Scar tissue is identical to normal skin
B. Pigment cannot enter any scar
C. Hair colour controls all retention
D. Its structure and vascular characteristics differ from unaffected skin
Answer: _____

Task 3 - Multiple-choice knowledge test

Select one answer for each question.

41. What is the limitation of a test area on scar tissue?
A. It provides useful local evidence but cannot guarantee the response of the complete scar
B. It guarantees identical retention across the scar
C. It diagnoses abnormal scar disease
D. It removes the need for consent
Answer: _____

42. Why should healed results be reviewed between sessions?
A. Fresh pigment always shows final colour
B. To assess retention, colour and tissue response before adding more pigment
C. Review is unnecessary
D. To diagnose hair loss
Answer: _____

43. Which feature would support suitability rather than concern?
A. Open ulceration
B. Increasing pain
C. Intact stable scar with no active symptoms
D. Progressive redness
Answer: _____

44. Which feature requires caution or referral?
A. Long-term stable colour
B. No tenderness
C. Mature flat surface
D. Unexplained persistent redness
Answer: _____

45. What is the SMP practitioner's role with abnormal scar behaviour?
A. Recognise warning signs and refer rather than diagnose or medically treat
B. Provide medical diagnosis
C. Prescribe medication
D. Perform scar surgery
Answer: _____

Task 3 - Multiple-choice knowledge test

Select one answer for each question.

46. How should the descriptors minor keloid and major keloid affect SMP suitability?
A. A minor keloid is suitable if treated deeply
B. Both describe keloid scarring and neither is suitable for SMP
C. Only a major keloid requires caution
D. The descriptors guarantee predictable retention
Answer: _____

47. What should be assessed before camouflage of a hair-transplant donor scar?
A. Only the transplant date
B. Only the pigment brand
C. Scar stability, texture, colour, vascularity, sensation, surrounding density and evidence of overharvesting
D. Only the client's age
Answer: _____

48. Why can several SMP sessions be preferable for scar camouflage?
A. Scar tissue must be fully saturated in one visit
B. Healing is irrelevant
C. More sessions remove the scar
D. Density can be built gradually while healed response is assessed
Answer: _____

49. When should treatment be postponed?
A. When the scar is symptomatic, changing or not fully healed
B. Whenever a scar is flat and stable
C. When expectations are realistic
D. When the surface is intact
Answer: _____

50. What is the safest overall principle for scar SMP suitability?
A. Treat every scar using the same method
B. Treat only appropriately assessed stable non-keloid scar tissue; postpone, decline or refer when findings are unsuitable or uncertain
C. Use maximum depth in all scars
D. Assume time since surgery alone confirms stability
Answer: _____