BASICS OF BURN MANAGEMENT

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CLASSIFICATION

1. FIRST DEGREE
2. SECOND DEGREE
3. THIRD DEGREE
**First degree (superficial) burns**

First-degree burns involve only epidermis of skin. The burn site appears red and it is very painful.
Second-degree (partial thickness) burns
Second-degree burns involve the epidermis and part of the dermis layer of skin. The burn site appears red, blistered, and may be swollen and painful.
Third-degree (full thickness) burns

Third-degree burns destroy the epidermis and dermis. Third-degree burns may also damage the underlying bones, muscles, and tendons. The burn site appears white or charred. There is no sensation in the area since the nerve endings are destroyed.
First degree burns
Second-degree burns
Third-degree burns
Body Surface Area of Burns(%) 

- Rule of Nines
- Rule of Hand
- Lund and Browder Classification
INTERNAL BURN
Third degree burns of legs
SUPERFICIAL BURN
First-Aid In Burns

- POUR WATER ON BURNS TILL BURNING SENSATION SUBSIDES
- Electric Burns - Separate from source of electricity and pour water
- Chemical Burns - Irrigate the burn with water - stand under a shower
First Aid

POUR WATER ON BURNS TILL PAIN SUBSIDES
CHEMICAL INJURY TO EYE

First Aid, Flash with Saline Continuously
Criteria for hospitalisation (American Burn Association)

- Burns >20% in adult, 10% in child
- Chemical or Electrical Burns
- Inhalation burns
- Burns involving vital area - face, genitals, hands, feet
- Circumferential burns
- Burns in elderly, neonates and medically compromised
EARLY MANAGEMENT

- INTRAVENOUS FLUIDS
- NASAL OXYGEN
- PAIN MANAGEMENT
- INTRAVENOUS ANTIBIOTICS
- BLOOD TRANSFUSION
- NUTRITION
Dressing Techniques

- Puncture the blister
- Do not remove the dead skin
- Clean with normal salin
- Non-adherent dressing (sofratulle)
- Thick layer of 1% Silversulphadiazine
- Thick layer of absorbent gauze
- Elastocrepe Bandage
BURNS DRESSING

- SILVER SULPHADIAZINE 1%
- Povidone iodine 5%
- Potato peel bandage
- Sofra Toullle dressing
- Skin substitutes
The SKIN SUBSTITUTES now available can be divided into three categories, depending on their origin and physiochemical composition:

- Biological skin substitutes
- Synthetic skin substitutes
- Biosynthetic skin substitutes.
BIOLOGICAL SKIN SUBSTITUTES

- Pig skin
- human amniotic membrane
- collagen derivatives
- cultured allograft.
AMNIOTIC MEMBRANE

IRRADIATED AMNION (TMH TISSUE BANK)
COLLAGEN APPLICATION
SKIN BANK

- SKIN BANK ARE SIMILAR TO BLOOD BANK.
- THEY STORE SKIN FROM DONORS.
- DONORS SKIN IS CALLED ALLOGRAFT.
- IT IS PRESERVED IN SOLUTION OR FROZEN.
- THIS SKIN IS TEMPORARY COVER.
- MANY TIMES THIS GRAFT IS REJECTED.
SYNTHETIC SUBSTITUTES

- Duoderm (polyurethane and hydrocolloids)
- Opsite (polyurethane film)
- Omiderm (acrylamide film and hydroxyethylmethyerylate with polyurethane).
BIO SYNTHETIC SUBSTITUTES

- Yannas and Burke's artificial skin (Silastle film, collagen, chondroitin sulphate)
- Biobrane (silicone film, nylon, collagen -derived peptides)
SEVERE THERMAL BURN
BIOLOGICAL SKIN

- Integra
BIO- SYNTHEtic SKIN SUBSTITUTE .(BIOBRANE)
BIO-SYNTHETIC SKIN

BEFORE

AFTER
GLYCEROL PRESERVED AUTOGRAFT (DONOR SKIN)
Tissue Culture

- Allogenic keratinocytes
- Autogenic keratinocytes
- SKIN CAN NOW BE GROWN IN A LABORATORY
Spray -on-skin

- Skin is now available as Nasal Spray and can be sprayed onto the burn wound

- Fiona Woods-awarded Australian Woman of the Year AWARD for this monumental work
SEVERE SEPSIS
LATE MANAGEMENT

SURGICAL TREATMENT

1. EARLY EXCISION & STSG
2. DELAYED EXCISION & STSG.
DELAYED EXCISION & STSG IN STAGES

ANTERIOR CHEST WALL WAS COVERED WITH STSG FROM THIGH (FIRST STAGE)
FULLY COVERED WITH GRAFT (FINAL STAGE)
Burns following epileptic Convulsion
Post Skin Grafting
POST BURN AXILLARY CONTRACTURE RELEASE

PRE OP VIEW

POST OP VIEW
Post burn contracture of hand
Tangential excision of Skin Grafting
Linear Scar on Face (Pre-op)
2- Plasty (Post-op)
Prevention- Early Resurfacing
Multiple Z-Plasties
Postburn Neck Contracture
Operative Procedure
Severe Post burn neck contracture
Release of contracture and skin grafting
Contracture released and skin grafted
PREVENTION OF CONTRACTURES & HYPERTROPHIC SCARS

- EARLY PHYSIOTHERAPY
- PRESSURE GARMENTS
- CICA CARE (Silicone gel sheeting)
BURN CENTRE

- PLASTIC SURGEON
- GENERAL SURGEON
- ANAESTHETIST
- INTENSIVIST
- DIETICIAN
- PHYSIOTHERAPIST
- MICROBIOLOGIST
- SOCIAL WORKER
- TRAINED PARAMEDICAL STAFF
The more you give the more you get,
Experience the joy of giving,
Giving not money, but of yourself,
It is only when you give of yourself,
That you truly give!

-Kahlil Gibran
(The Prophet)
If my mind can conceive it,  
If my heart can believe it,  
I know I can achieve it  

-Jesse Jackson