

Special Article

[Simplified Wound Care/Management - Excerpts from 7th National Wound Care Workshop 2021]

Wound Care in COVID-19

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Wound Care is very important in this COVID-19 pandemic. The factors associated with poor prognosis from COVID-19 which increase the risk for chronic wounds are older age, hypertension, chronic lung disease, diabetes and obesity. Patient prioritization is a key aspect while treating wounds in patients with COVID-19 infection. Telemedicine is a supportive alternative for clinic visits and need to create awareness about use of telemedicine among the patients. The patients should be encouraged and educated about the basics of hygiene and wound care prevention.

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Wound Care is an essential service in this grimming situation of the COVID-19 pandemic. Patients with wounds represent an extremely vulnerable population including the elderly, patients with hypertension, diabetes, chronic obstructive pulmonary disease, kidney disease, urinary tract infections, skin diseases, cancer, human immunodeficiency virus etc¹. The factors associated with poor prognosis from COVID-19 which increase the risk for chronic wounds are older age, hypertension, chronic lung disease, diabetes and obesity. If patients with wounds are not treated, it is likely that their condition will worsen requiring hospitalization. Ignoring wounds will not make them better.

Patient Prioritization :

Patients who must be seen —

- Patients who are at high risk for infection include

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Editor's Comment :

- Patient prioritization is important and those with wounds having COVID-19 infection should be handled with utmost care with a support of tele-medicine whenever pragmatic.
- The clinicians should follow all COVID-19 protocols, use barrier examination approach and wear two masks.
- Day surgeries with limited number of people is preferable.
- The patients should be encouraged and educated about the basics of hygiene and wound care prevention.
- The wounds that respond below the normal healing rate should be considered for alternative therapies or further investigations.

patients with diabetes, compromised immunity, having necrotic tissue, and are actively undergoing serial debridement

- Patients with exposed vessels and vessel injury, diabetic and peripheral vascular disease and liver disease are the acute patients that need to be treated immediately without RT-PCR test.

- Patients who do not have reliable wound care at home

- Patients in compression with high drainage

Patients who can be deferred for in 2-3 weeks—

- Change to wound care strategy is likely to be needed in several weeks as the wound improves.

- Patient and/or family is reliable/ educated can treat at local hospitals and will call if there is a problem.

- Patients in compression with low drainage and stable wraps may consider extending visits to every 2 weeks.

- Patients who could be rescheduled to 2-3 weeks were asked to visit their local healthcare centres.

Patients who can be rescheduled in 4-6 weeks—

- Stable wound with stable wound care
- Residents of skilled nursing facilities
- Bed sore without septicemia

Patients who do not need to be seen can consider telemedicine options —

- No open wounds
- Extended follow up in very stable patients
- Panel have recommended to wash wound with clean water or saline and apply ointment if not emergency.

Although telemedicine is very useful in COVID-19 pandemic, it is still used trivially in wound care². Integrating telemedicine enables maintenance of social distance and conserve personal protective equipment and medical resources.³

Consider tele-health visits —

Coordinate with caregiver and ask the following :

- Is there undermining or tunneling ? What does the drainage look like ?
- Has drainage increased? Is drainage blue-green with musty or fruity smell ?
- Malodor after the dressing was removed? Is it firm around the wound ?
- Does the patient have fevers, chills, new pain or increased pain or change in blood sugars ?
- Photograph or live video with supplemental lighting if needed.

Patient management: Outpatient :

Screen patients before entering the clinic with temperature check and screening questions —

The panel recommended to follow all COVID-19 protocols including mask if appropriate, sanitization, and washing hands. The patients should defer clinic visit if appropriate based on upper respiratory symptoms. The panel can use barrier examination approach and should always wear two masks. The young assistants should wear full protection, collect all the details of patients and brief the doctor⁴.

Developing a strategy for follow-up of patients—

The Panel should determine the frequency of dressing, whether required to be seen weekly, in 2-3 weeks in semi emergency patients or in 4-6 weeks.

Reduced volume in clinic —

In view of the reduced volume of patients in clinic, the nurses can be involved in approaching patients with telephonic contacts. All the clinic staff should be educated in a way that they will be competent enough to screen patients before sending to the doctor. The family members of patients should be educated about the wound care emphasizing on the preventive measures and hand hygiene, particularly in presence of COVID-19. The panel recommended to follow hospital guidance regarding use of PPE kits, cleaning all the surfaces thoroughly, especially stainless steel

with antiviral wipes, copious amount of normal saline, cleaning waiting room surfaces on a regular schedule, utilizing alternative waiting rooms and clinic rooms for symptomatic patients or patient under investigation who must be seen.

Patient management : Surgical patients :

Postpone all elective procedures —

Elective procedures could be postponed in potential surgical patients with a vital or functional prognosis that will not adversely affect with a two-month delay in treatment. In addition, the panel suggested to call off or postpone procedures in patients with chronic wounds considering flap reconstruction or patients with ulcerated but stable, such as slow growing skin cancers.

Perform day surgeries —

Surgeries should be performed during the day at an ambulatory facility with limited number of people, scrubbed to the absolute minimum. Triage system is recommended for elective procedure and if there is an emergency then surgery should be done immediately without knowing RT-PCR status. However, examine all vital parameters during this period and check for hemodynamic stability. If all the parameters are normal, patient should be operated immediately by wearing PPE kits.

Basics of Hygiene and Patient Education :

Development and implementation of hygiene practices are crucial steps to prevent the spread of COVID-19 and other flu like illnesses. It is the prime responsibility of Panel to educate patients and encourage them to maintain personal hygiene and take special precautions for maintaining best wound care practice during the COVID-19 pandemic.

- Encourage and educate patients with basics of hygiene including frequent hand washing with soap or sanitizers, wiping down surfaces with antiviral wipes, wearing masks especially if patient has a cough or cold, and physical distancing.
- Educate patients about the basics of wound care prevention encompassing key aspects of wound management such as edema control, pressure relief, good nutrition, hydration, and posture change depending on the wound⁵.





According to the participating panel, the golden period of wound management is within 6 h of onset of injury in case of acute wounds. In grossly contaminated and runover injury, the wound should be cleaned thoroughly, primary closure of wound not to be done, the patient should be admitted for minor operation, hemorrhage should be stopped or controlled.

Panel discussed patient-related factors such as high risk of disease spread in COVID-19 positive patients and difficulty in carrying out frequent dressing and surgery. Disease factor include timely treatment to prevent development of cardiovascular and respiratory complications and amputation. Panel suggested that in emergency situations use of rapid antigen test can be done and if negative, proceed with the decided treatment strategy. Correspondingly, collection of nasopharyngeal swabs for RT-PCR testing should be done. Patients with COVID-19 should be dealt

with all the necessary precautions during surgery. Post-surgery dressing periods can be kept to minimum as well as educate and encourage patients and family members to continue wound dressing at home. A few panellists suggested to perform Grade-3 CT-chest to know about COVID-19 infection and delay surgery if possible and treat conservatively. Difference of opinion was seen between the participating panel for risk of infection spreading due to bone fluid spilling that occurs during laparoscopy and further treatment. Panel agreed that Hydroheal wash and ointment gave excellent results.

Case study : For a patient with appendicitis, the operation was needed to be performed immediately without waiting for the COVID-19 test results. Open surgery was performed and avoided laparoscopy. Post-surgery, the patients was found to be COVID-19 positive. However, all the procedures were done in isolation and team who treated the patient were tested.

In this pandemic, telemedicine is a supportive alternative for clinic visits and need to create awareness about use of telemedicine among the patients. Panel should get themselves vaccinated and check their antibodies status periodically. The COVID-19 positive

CASE STUDIES DISCUSSED	
	Case 1 A patient with recurrent bed sore who was hypertensive, diabetic as well as COVID-19 positive was operated successfully taking all the precautions for COVID-19.
	Case 2 A patient with diabetes having chronic neuropathic ulcer was COVID-19 positive. He is on painkillers and antibiotics and yet to come for surgery.
	Case 3 A patient with vascular wound but unknown status of COVID-19 infection was treated well.
	Case 4 A patient with diabetic foot having hard to heal wound after amputation was treated using VAC therapy.

patients should be handled with utmost precaution and stringently follow COVID-19 guidelines such as screening, wearing mask, washing hands, using PPE kit, and dressing of wounds in open space without air conditioner. As there is no international protocol, universal precautions should be taken to avert from different infections including COVID-19.

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