Digital Wound Assessment Solution
Wound healing is a challenging aspect of healthcare. With the rising geriatric population and lifestyle changes, there has been an increased growth of chronic diseases like diabetes and cardiovascular diseases which are affecting skin integrity resulting in high prevalence of chronic wounds and infections. A variety of wounds can occur and are treated by multiple healthcare professionals across various settings. Wound imaging along with objective and precise measurements are paramount to improve prognostic values of healing and treatment efficacy. (Chang et al. 2011, Hammond 2011).
Wound infection is a major concern for healthcare professionals and patients. Patients with chronic wounds face complications if no proper care was taken or left untreated and it will result in the rise of healthcare cost. Henceforth, wound care is important to reduce infections and it requires trained specialists. It is pertinent to identify delayed wound healing process to avoid complications.

Around 80-85% of patients suffering from chronic wounds like pressure ulcer get healed within six months and the average cost to heal per wound ranges between **US$3500 – US$4,000** (Wound Care Market Global Industry Analysis, Size, Growth, Trends and Forecast 2016-2024).

To track and monitor the wound healing process is time-consuming and frequent wound assessment report from clinicians is important and clinically beneficial but it is not implemented due to a shortage of manpower. Additionally, wound measurements might be inaccurate due to the traditional ruler method, tracing techniques and user variability as it is subjective, which may impede care quality and patient’s discomfort. The records also required manual data entry and are difficult to share among the healthcare professionals. Accurate measurements and records of wounds allow healthcare professionals to determine the progress and efficacy of the treatment plan.
KONICA MINOLTA WOUNDAIDE IS A DIGITAL HANDHELD WOUND MEASUREMENT SOLUTION THAT ALLOWS EFFICIENT WOUND MONITORING AND DOCUMENTATION, providing an accurate and consistent wound assessment which includes photos and 3D measurements of depth, length, width, surface area and volume of the wound. The non-contact measurement decreases the risk of infection and allows capturing of information in a faster manner as compared to the conventional method.

The solution is independent of human judgement, hence there is no user variability. Accurate measurements can aid in monitoring and management of the wound, and the information can be uploaded and shared across systems to improve quality care experience. WoundAide can be integrated with hospitals’ electronic medical records systems which allows healthcare professionals to access the records and history seamlessly, providing a holistic view of the patient and allows real-time consultation with wound specialists and clinicians.

In understaffed healthcare institutions, WoundAide helps boosts productivity and reduce time in accessing the information as nurses can be trained to do the measurements instead of wound specialists in the primary care, acute hospitals, step-down care and home care providers and information can be sent and shared remotely.
Key Benefits

Improve Patient Care Experience and Quality
Accurate and Consistent Measurements
Digital Documentation

Competitive Advantages

Efficient Wound Measurements Process

WoundAide is able to reduce time to measure wound by >90%.

**Traditional** Wound Care Workflow

Total about **30 mins** per case. In a day, a specialist can take care of **16 cases** only.

<table>
<thead>
<tr>
<th>Engaged</th>
<th>Undress</th>
<th>Cleaning</th>
<th>Measurement</th>
<th>Paper Record</th>
<th>Photo</th>
<th>Dressing</th>
<th>Cover</th>
<th>Comm</th>
<th>Data entry</th>
<th>Photo upload</th>
<th>Report</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td></td>
<td>Total about <strong>15 mins</strong></td>
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**Konica Minolta** Wound Care Workflow

Total about **16 mins** per case. In a day, a specialist can take care of **30 cases**.

<table>
<thead>
<tr>
<th>Engaged</th>
<th>Undress</th>
<th>Cleaning</th>
<th>Capture 3D, Measurement, Data entry, Report</th>
<th>Dressing</th>
<th>Cover</th>
<th>Comm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total about <strong>1 mins</strong></td>
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Measure, take photo and report: **15 mins shorten to 1 min**.
Overall wound care workflow: **30 mins shorten to 16 mins**.
Productivity improvement: **16 cases increased to 30 cases**
Competitive Advantages

**Objective Wound Measurements**
- Non-contact technique reduce risk of infection and patient discomfort
- Objective capture within seconds
- Wound photo & documentation within one system
- Standardised assessment and documentation wound care tool
- Automatically define wound boundary
- Automated 3D wound measurements including depth and volume
- Reduce variability and inconsistency

**Wound data available to remote specialist**
- Access to data in a protected and secured manner
- Data can be shared across healthcare institutions when necessary
- Real-time consultation with wound specialists / clinicians
- Integration with electronic medical records to provide a holistic view of the patient

**Save cost by effective wound monitoring**
- Customised wound documentation electronic charting
- Track and monitor wound progress objectively
- Provides precise and objective trending to enable clinical decision making
- Alerts can be customised accordingly to individual institution clinical guidelines to improve efficiency and productivity

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**Traditional Wound Measurement**

**RELIABILITY AND CONSISTENCY**
Interrater reliability may differ as there must be a high degree of agreement between them using the same measurement technique on the position of the wound boundary, which may result in variance in measurements

**USABILITY**
It is time-consuming and dependent on specialists’ availability. The specialists need too many steps to measure the wound and key in the data.

**PRODUCTIVITY**
The typical process takes 30 minutes from undressing the wound, measurement, recording to dressing the wound. The actual wound measurement takes about 15 minutes to measure, record, and take a photo of the wound and report

**EFFICIENT DOCUMENTATION AND ACCESS**
Paper Record may be difficult to replicate and share with the healthcare professionals or update patient’s record. It may not provide an objective method of comparisons of progress
WoundAide

RELIABILITY AND CONSISTENCY
WoundAide uses digital imaging for measurement, henceforth there is no subjective assessment. It automatically defines the wound boundary and capture 3D wound measurements including depth and volume.

USABILITY
WoundAide allows immediate sharing of the information.

PRODUCTIVITY
With WoundAide, the wound measurement technique only takes a minute, effectively shortening the entire wound care workflow process to just a total of 16 minutes.

EFFICIENT DOCUMENTATION AND ACCESS
WoundAide allows healthcare professional to access the documents easily while being stored securely. Patient’s medical record can be updated easily to provide a holistic view and allows healthcare professionals to share, track and monitor effortlessly and efficiently.
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Presence in the region

About Konica Minolta Business Solutions Asia
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Our organisation is certified according to ISO27001, ISO9001, ISO14001 and ISO13485 standards.