In this issue

President’s message: WCET™ strategic alliances — update 2017

Editorial: End of another year

From the IIWCG: Leading wound care education initiatives

Oral endotracheal tube securement device reduces incidences of accidental self-extubation and medical adhesive-related skin injury (MARS1) in an ICU

“The elastic limit”: Introducing a novel concept in communicating excessive shear and tissue deformation

International Ostomy Guideline — update on 2020

An analysis of the condition of the peristomal skin and quality of life in ostomates before and after using ostomy pouches with Manuka honey

Index of articles in the WCET™ Journal 2017; 37(1–4)
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Contents

President’s message: WCET™ strategic alliances — update 2017 4
Susan Stelton

Editorial: End of another year 7
Karen Zulkowski

From the IIWCG: Leading wound care education initiatives 8
Gulnaz Tariq

Oral endotracheal tube securement device reduces incidences of accidental self-extubation and medical adhesive-related skin injury (MARSI) in an ICU 10
Rhyan A Hitalla

“The elastic limit”: Introducing a novel concept in communicating excessive shear and tissue deformation 16
Evan Call, Randy Jones, Katherine DeMonja, Joshua N Burton, Susan Jellum, Allyn Bernkopf & Craig Oberg

International Ostomy Guideline — update on 2020 21
Karen Zulkowski

An analysis of the condition of the peristomal skin and quality of life in ostomates before and after using ostomy pouches with Manuka honey 22
Gabriele Roveron

Index of articles in the WCET™ Journal 2017; 37(1–4) 27
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President's message

WCET™ strategic alliances — update 2017

As my last full year as your WCET™ President comes to an end, I thought it would be a good idea to update you on what the WCET™ has been doing to meet one of the key elements of its strategic plan: establishing and maintaining strategic alliances with other health care professional organisations that have common interests to WCET™.

Several years ago, the WCET™ Executive Board (EB) decided that, in order to meet the ever-changing demands of an evolving health care environment, WCET™ would engage in collaborative partnerships with other professional organisations to fulfil its mission of specialised nursing care for all persons with a stoma, wound or continence care worldwide. To achieve this strategic plan item, this would require the WCET™ to form strategic alliances with other health care professional associations to achieve common goals. The WCET™ began the process by identifying which professional associations have missions that are complementary to the WCET™. The organisations were then contacted to determine whether there was interest in collaboration with the WCET™.

The WCET™ has done that. Since education is one of our core missions, the WCET™ has focused on organisations that have a global interest in education in stoma, wound and/or continence care. In recent years, WCET™ ran the ostomy and pressure ulcer streams for some of the World Union of Wound Healing Societies (WUWHS) Conferences in Toronto, Canada, and Yokohama, Japan. I am pleased to tell you that I have been appointed to be a member of the WUWHS Global Advisory Board as one of the two members from North America. Although my term as WCET™ President ends in 2018, I will continue with this appointment until it ends in 2020.

Norma Gill firmly believed in the power of education. So the WCET™ has aligned itself with several formal educational programs. There have been memorandums of agreement with educational programs that needed our assistance to educate international students. One such example was in Canada. The Canadian ETNEP provided two free scholarships for WCET™ members to attend their online ETNEP and the WCET™ arranged for preceptors and travel and lodging for the students to receive clinical supervision closer to the students’ home country. This was a successful alliance.

Another important alliance has been with Excelsior College. Although located in Albany, New York, USA, Excelsior is one of the oldest distance learning nursing programs, having opened in 1971. Excelsior offers baccalaureate and masters’ degrees online. As one of the WCET membership benefits, Excelsior offers reduced tuition fees for our members. You can learn more about Excelsior College by visiting their website at www.excelsior.edu.

Another organisation with a mutual mission is the National Pressure Ulcer Advisory Panel (NPUAP). For many years now the WCET™ has been a collaborating organisation with NPUAP. WCET Journal Executive Editor, Karen Zulkowski, has been our representative and attends their meeting. Thank you, Karen, for being our liaison. At the NPUAP Conferences, the WCET™ receives a free booth where we can familiarise conference attendees about the WCET™ and our member benefits. WCET has actively participated in their 2010 consensus conference on avoidable/unavoidable pressure injuries with voting privileges. You can read the results of that conference in the Black et al. article. WCET™ also provided comments for the April 2016 NPUAP conference on pressure ulcer terminology changes.

The WCET™ EB has heard our members’ comments from the membership survey about the “need to engage more members who are not members of the executive board in WCET™ activities”. Therefore, recently, WCET™ applied to be a collaborating organisation for the next revision of the NPUAP-EPUAP-PPPIA Pressure Ulcer/Injury Clinical Guidelines scheduled for release in 2019. At this writing, I am pleased to announce that the WCET™ has just been approved as a collaborating organisation for this important international guideline project. The WCET™ submitted names of several non-EB members for consideration by the NPUAP to represent the WCET™ on the guideline working groups. Individual working group members should be selected soon by the NPUAP. Thank you to our members who volunteered. We hope that you are selected and know that you will represent the WCET™ well if chosen by the NPUAP to serve in this volunteer capacity.

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In years past, the WCET-UK, now ASCN-UK, provided a dedicated column in the WCET™ Journal. Thank you to ASCN-UK member, Jo Sica, who for several years provided us with their column in the WCET™ Journal.

It is with great delight that I announce our newest alliance with the International Interprofessional Wound Care Group (IIWCG). The IIWCG has chosen our WCET™ Journal to be their official journal, so this means that all IIWCG members will be joining the WCET™. Starting with issue 1, 2018, each issue of the WCET™ Journal will include a message from the IIWCG president, Gulnaz Tariq, who is also the WCET™ International Delegate from the United Arab Emirates and President Elect for the WUWHS. Hiske Smart from the Kingdom of Bahrain will serve as the Associate Editor for the IIWCG content in our journal. We welcome them and look forward to this latest alliance.

REFERENCE

Alianzas estratégicas de WCET - actualizar 2017

A medida que completo mi último año como presidente de WCET™, pensé que sería una buena idea actualizarlo sobre cómo WCET™ ha estado haciendo para cumplir con uno de los elementos clave de su plan estratégico: establecer y mantener alianzas estratégicas. con otras organizaciones profesionales de atención médica que tienen intereses comunes para WCET™.

Hace varios años, la Junta Ejecutiva WCET™ (EB) decidió que, para cumplir con las cambiantes demandas de un entorno de salud en evolución, WCET™ participaría en asociaciones de colaboración con otras organizaciones profesionales para cumplir su misión de atención de enfermería especializada para todas las personas con estomas, heridas o cuidado de continencia en todo el mundo. Para lograr este elemento del plan estratégico, se requería que el WCET™ forme alianzas estratégicas con otras asociaciones de profesionales de la salud para lograr objetivos comunes. El WCET™ comenzó el proceso al identificar qué asociaciones profesionales tienen misiones complementarias al WCET™. Las organizaciones fueron contactadas para determinar si había interés en colaborar con WCET™.

WCET™ lo ha hecho. Dado que la educación es una de nuestras misiones principales, el WCET™ se ha centrado en organizaciones que tienen un interés mundial en la educación en estoma, cuidado de heridas y / o continencia. En los últimos años, WCET™ realizó las transmisiones de ostomía y úlceras por presión para algunas de las Conferencias de la Unión Mundial de Sociedades Curativas Mundiales (WUWHS) en Toronto, Canadá y Yokohama, Japón. Me complace informarle que he sido nombrado miembro de la Junta Asesora Global de WUWHS como uno de los dos miembros de América del Norte. Aunque mi mandato como Presidente de WCET™ finaliza en 2018, continuaré con esta designación hasta que finalice en 2020.

Norma Gill creía firmemente en el poder de la educación. Así que WCET™ se ha alineado con varios programas educativos formales. Se realizarán acuerdos con programas educativos que necesitaban nuestra ayuda para educar a los estudiantes internacionales. Un ejemplo de esto fue en Canadá. El ETNEP canadiense otorgó dos becas gratuitas para que los miembros de WCET™ asistan a ETNEP y WCET™ en línea para que los preceptores y los estudiantes viajen, se alojen y reciban una supervisión clínica más cercana a su país de origen. Esta fue una alianza exitosa.


Otra organización con una misión mutua es el Panel asesor nacional sobre úlceras por presión (NPUAP). Desde hace muchos años el WCET™ ha sido una organización colaboradora con NPUAP. La Editora Ejecutiva de WCET Journal, Karen Zulkowski, ha sido nuestra asistente y representante en sus reuniones. Gracias, Karen por ser
nuestra enlace. En las Conferencias de NPUAP WCET™ recibe un stand gratuito donde podemos familiarizar a los asistentes a la conferencia sobre WCET™ sobre nuestros beneficios para miembros. WCET ha participado activamente en su conferencia de consenso de 2010 sobre lesiones de presión evitables / inevitables con privilegio de voto. Puede leer los resultados de esa conferencia en el siguiente artículo de Black et al.1 WCET™ también proporcionó comentarios acerca de la conferencia NPUAP de abril de 2016 sobre cambios en la terminología de úlceras por presión.

WCET™ EB ha escuchado los comentarios de nuestros miembros de la Encuesta de Membresía sobre la “necesidad de involucrar a más miembros que no forman parte de la junta ejecutiva en las actividades de WCET™”. Por lo tanto, recientemente, WCET™ se aplicó para ser una organización colaboradora para la próxima revisión de las pautas clínicas sobre úlceras por presión / lesión de NPUAP-EPPAP-PPPIA programadas para su lanzamiento en 2019. Al momento de escribir este documento, me complace anunciar que WCET™ acaba de ser aprobado como una organización colaboradora para este importante proyecto internacional de directrices. WCET™ presentó los nombres de varios miembros que no pertenecen a EB para que NPUAP los considere para representar al WCET™ en los grupos de trabajo de la guía. Los miembros del grupo de trabajo individual deberían ser seleccionados pronto por el NPUAP. Gracias a nuestros miembros que se ofrecieron como voluntarios. Esperamos que sean seleccionados y sepan representar a WCET™ si los eligen NPUAP para prestar servicio voluntario.

En años pasados, el WCET-UK, ahora ASCN-UK proporcionó una columna dedicada en el WCET™ Journal. Gracias a Jo Sica, miembro de ASCN-UK, que durante varios años nos brindó su columna en el WCET™ Journal.

Es con gran placer que anuncio nuestra alianza más reciente con el International Interprofessional Wound Care Group (IIWCG). El IIWCG eligió nuestro Diario WCET™ como su diario oficial, por lo que todos los miembros de IIWCG se unirán al WCET™. Comenzando con la Revista Número 1, 2018, cada ejemplar del Diario WCET™ incluirá un mensaje del presidente de IIWCG, Gulnaz Tariq, que también es el Delegado Internacional WCET™ de los Emiratos Árabes Unidos y Presidente Electo del WUWHS. Hiske Smart del Reino de Bahrein servirá como editor asociado para el contenido de IIWCG en nuestra revista. Les damos la bienvenida y esperamos esta última alianza.

A medida que el entorno sanitario mundial continúa evolucionando, el WCET™ continuará siendo proactivo en la promoción de su estatus como la única organización global dedicada a profesionales que brindan cuidados de ostomía, heridas y continencia. WCET™ maximizará las oportunidades para construir y nutrir alianzas estratégicas con organizaciones de atención médica y otros para alcanzar objetivos comunes. Avanzar junto con organizaciones profesionales y educativas de ideas afines seguramente beneficiará a nuestros miembros de WCET™ así como también a nuestros socios estratégicos de la alianza para mejorar la práctica y, en última instancia, los resultados de los pacientes. Gracias a todos los que hacen esto realidad.

Traducido por Lupita Lobo Cordero.

REFERENCIA
It is hard to believe that 2017 is almost at an end. Time goes quickly. The year 2018 will be an exciting year with the WCET Congress. It is a wonderful opportunity for networking as well as getting involved in your organisation. There are many opportunities for members to participate.

The education committee, NNGF, publications and communications committee and editorial board always need new members. Help is needed for the upcoming 2020 International Ostomy Guideline. Translators are needed for the journal and guidelines. Think about what interests you. Feel free to email the committee chair or board members for more information. Talk to your country’s international delegate about your country-specific needs and concerns. Be involved.

Of course, as the journal editor, I am always looking for people to write articles. The Bulletin is also a way to get a message out. Please feel free to contact either me or the publications and communications chair for help. All of you have an interesting case you worked on. Get your friends together and write about it. There is a writer’s guide on our website or come with your ideas to our Congress. Greg Paull, our publisher, and I will be doing a talk on getting published. I will also do a lecture on this at the March NPUAP conference in Las Vegas. You can also email me with ideas and I will be happy to help you.

If you had an abstract accepted for our Congress, either as a podium presentation or poster, think about writing your work for the journal. Tell me why you decided on wound, ostomy and continence care as your area of practice. Next issue I will tell you my story and I would love to include other people’s stories as well.

Look to the new year as a time for growth and involvement. Share your ideas. Share your work. Above all, be proud of yourself for what you have accomplished in 2017 and what you will do in 2018. To your patients and their family, you truly are a blessing. Take this time to decide where you want to grow intellectually and professionally and do it. Know you have the ability to be a leader.
From the IIWCG

Leading wound care education initiatives

Gulnaz Tariq
President Elect, World Union of Wound Healing Societies; President, World Union of Wound Healing Societies 2020 Congress; President, International Inter-Professional Wound Care Group; Manager for Wound Care/Surgery/VIP, Sheikh Khalifa Medical City, Abu Dhabi, United Arab Emirates

Wound healing comprises a cascade of events that the body employs to resolve injury. Wound care provides an optimal environment for healing to take place. The goal of all of the wound care educational programs is to provide health care professionals with increased knowledge in the specialty, with particular emphasis on obtaining excellent results while minimising and managing complications. In the early 2000s, there was a belief amongst Abu Dhabi wound care professionals of a need for an arena to discuss not only advances and research in wound care, including works in progress, but also to discuss what they were doing with their problems, what their difficulties were, and what were some of their initial conclusions. They founded the International Inter-professional Wound Care Group (IIWCG) as a non-profit organisation dedicated to advancing skin, health and wound management in United Arab Emirates and other countries in the region.

The Abu Dhabi Wound Care Conference (ADWCC) was established in 2008 by the IIWCG pioneers of Middle Eastern wound care. The ADWCC founders envisioned a climate in which wound care professionals could focus on new developments in the field of wound care, share experiences and opinions, and exchange information. Through consideration to both the practical and scientific aspects of wound care, the IIWCG and ADWCC are aligned with wound healing. The conference is an assemblage of like-minded wound care professionals who are devoted to lifelong education and to promote the art of wound care by innovation and research. It aims to strengthen and inspire wound care professionals of the region to pursue the highest levels of personal conduct and professional service.

Abu Dhabi IIWCC was integrated with the ADWCC to better translate new evidence-based knowledge into practice.

The ADWCC is widely viewed as the pre-eminent regional wound care conference in the Middle East. Yet any conference is only as good as its attendees. Innovative, intelligent and informed discussions are the cornerstone of the conference. The original goals and concepts of an open forum with free discussion of work completed and work in progress continue. New attendees bring fresh ideas and increased energy to the conference and are vital to its continued success. Some attendees have found that the conference program content validates their current practices. Others have been challenged to re-think their patient management decisions and adapt new techniques and strategies. In the most recent year, with the support of the Institute of Surgery and Innovation in London, basic science has been further promoted with symposia on wound repair, regeneration and reconstruction.

The success in wound care education allowed Abu Dhabi to win the bid to host the World Union of Wound Healing Societies 2020 Congress. The World Union of Wound Healing Societies 2020 Congress will host leaders in the field of wound care from around the world, with the objective to educate on a global scale. In addition to highlighting the latest advancements in a wide range of wound care issues, the congress will stimulate socialisation among colleagues.

Wound care education must advocate communities and dialogue. It must concentrate not just on the practice, but on the content of that dialogue (learning) and its objective (holistic student development) to develop expertise. In addition, there must be understanding for the wider sociocultural, political environments within which their wound care professionals operate. Building upon this foundation, wound care experts and professionals must continue to assure excellence and superior education in wound care, not only for this generation but for future generations of wound care professionals.

REFERENCES
Dear Colleagues,

It’s our utmost pleasure to announce the 9th Abu Dhabi Wound Care Conference, scheduled to be held on 10 & 11 February 2018, Chaired by Guinaz Tariq and organized by International Inter-Professional Wound Care Group (IIWCG), Abu Dhabi National Exhibition Centre (ADNEC), UAE. Two days interactive, stimulating discussion and presentations on “Together, we bring the change”.

Wound healing, diabetic foot prevention, management, skin tears and latest research findings that can help you establish a different learning approach using evidence-based practice for better results.

The conference is for all healthcare professionals influencing patient care. This year guarantees an innovative networking approach never experienced before. Also a research platform for rising stars to share their valuable cutting-edge information to enhance everyday skin and wound practice. Meet the future as we pledge to change the landscape of Wound Care by bringing the World Union Wound Healing Society Congress to Abu Dhabi in 2020.

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- General & Family Practitioners
- Other allied healthcare professionals with an interest in wound care
- IIWCG Graduates

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Oral endotracheal tube securement device reduces incidences of accidental self-extubation and medical adhesive-related skin injury (MARSI) in an ICU

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ABSTRACT:
Oral endotracheal tube (ETT) insertion is one of the most common procedures in the intensive care unit (ICU) and frequently critical care areas where there is a need for such devices to provide respiratory support. Usually in such procedures, the ETT is inserted and then secured with a form of medical adhesive material (such as a tape) or a cloth tie. Oftentimes these devices, when not secured properly, may result in accidental extubation of the ETT, leading to respiratory distress and possibly even more severe consequences, such as the patients’ death. This article describes the introduction of a new ETT securement device into our 800-bed hospital located in metropolitan Manila in The Philippines, and discusses its impact in our clinical settings in reducing incidences of both MARSI and unplanned extubation.

Keywords: Medical device, skin injury.

INTRODUCTION
Oral endotracheal tube (ETT) insertion is one of the most common procedures in the intensive care unit (ICU) and frequently critical care areas where there is a need for such devices to provide respiratory support. Usually in such procedures, the ETT is inserted and then secured with a form of medical adhesive material (such as a tape) or a cloth tie. Oftentimes these devices, when not secured properly, may result in accidental extubation of the ETT, leading to respiratory distress and possibly even more severe consequences, such as the patients’ death.

Accidental self-extubation can also be considered as a ‘sentinel event’ that is considered one of the hospital’s Quality Indicators when it comes to patients’ safety. Other issues concerning placement of the ETT are the medial adhesive-related skin injuries (MARSI) that may result from the use of strong adhesive tapes for securing these tubes. MARSI is defined as an occurrence in which erythema and/or other manifestation of cutaneous abnormality (including, but not limited to, vesicle, bulla, erosion, or tear) persists 30 minutes or more after removal of the adhesive.

This article describes the introduction of a new ETT securement device into our 800-bed hospital located in metropolitan Manila in The Philippines, and discusses its impact in our clinical settings in reducing incidences of both MARSI and unplanned extubation.

BACKGROUND — TRADITIONAL METHODS OF ETT SECUREMENT
Traditionally an ETT is secured using one or more of the following methods:

- Cloth tapes or ties
- Velcro securement devices
- Other medical adhesive tapes

However, there are recorded and experiential disadvantages as well as concerns with traditional securement methods. These can include the following concerns.

Cloth tapes and other adhesive tapes are usually changed daily, thereby potentially increasing the risk of accidental extubation during such procedures. Time and motion studies with daily tape changes also indicate a cost impact due to increased nursing time to change tapes, accidental extubation events, and potential skin damage from frequent skin stripping. Cloth tapes, once applied, can cause facial
deformation of the patient, which can be distressing for the relatives of the patients as their distorted features can make their relatives unrecognisable (Figure 1).

Strong adhesives on tapes can result in health care workers oftentimes using scissors to cut the tapes away from the face (Figure 2). Apart from the potential to damage facial skin or cause other injuries, this method may accidentally lead to severing the pilot tube of the ETT, thus deflating the cuff, leading to inadequate oxygenation or to an accidental extubation event that now requires an ETT change.

Secretions coming from the oral cavity may also be absorbed by these traditional securement methods and when these secretions remain on the skin for prolonged periods, may lead to maceration of such areas. This can, in turn, create moisture-associated skin damage (MASD) to the surrounding skin and the lip of the patient.

All of these concerns were taken into consideration when deciding to review our current management methods of ETT securement.

STUDY METHODS

After we reviewed our current methods and policies of ETT securement, we searched for alternative product options. After some research, the AnchorFast™ Oral Endotracheal Tube Fastener (Hollister Incorporated, Libertyville, IL, USA) was the device chosen to secure the ETTs of five patients admitted in the ICU and acute stroke unit (Figure 3).

IRB approval was not required as this was not an experimental product, but rather a user evaluation of acceptability for use by our hospital. However, the device was routed through our usual internal value analysis committee for assessment and suitability prior to use.

With the initial success on the five previously described patients, it was later recommended for wider use in the various areas in the hospital where the use of an ETT is possible. This ultimately led to the inclusion of this device as part of the hospital protocol as securement of the ETT was simple, secure and access to the oral cavity for routine mouth care was easier (Figure 4).

A training program was initiated to all of the potential users of the device in our institution — from unit staff, head nurses, nurse supervisors, and to clinical instructors. Subsequent training also included a return demonstration of the actual securing of the device to a mannequin head, and product education on the basic components of the device.

STUDY RESULTS

Five initial patients were selected in the latter part of 2015 (December) to first determine product acceptability by our institution. This then required some internal product evaluation by our product committee before we could take the next steps. The actual retrospective study took place in the latter part of 2016, where a total of 20 intubations during that year were compared using the device over a six-month period versus the prior six months without the device (utilising retrospective medical record data). The results during this six-month period were remarkable and illustrated a significant lessening of both incidences of MARSI and unplanned/accidental extubations. (Note: Six patients out of 26 experienced neither MARSI nor unplanned extubation and are not included in Table 1.)
As illustrated in Table 1, there was significant improvement across our key performance metrics:

- Accidental or unplanned oral ETT extubation incidences were reduced to zero (13 unplanned extubations prior to device use from 26 total intubations during the year).

- The incidence of MARSI was reduced (6 MARSI events prior to device use from 26 total intubations during the year). One incident of MARSI occurred after commencement of device usage that was related to incorrect application and removal techniques. Additional staff education quickly resolved this issue.

- Quality improvement indicators on unplanned and accidental ETT extubations have improved — a very good quality improvement of the hospital when it comes to patient safety standards.

- Cost-effectiveness is achieved as the device is changed approximately every week, compared to the traditional method of securement (which is daily).

- Better security compared to the traditional tape securement techniques.

**SUBSEQUENT STRATEGIES FOR ONGOING QUALITY IMPROVEMENT**

Comprehensive training and education of the end users is critical (specifically those who are in the ICU, stroke unit, emergency room, operating room and delivery suite) where there are possibilities for ETT insertions.

Developing a policy and protocol whereby all patients intubated in these areas should use this oral ETT securement device.

Early identification of patients who are at high risk of accidental self-extubation should be considered as well as reviewing the existing sedation policy and protocol.

The device should be made available on all Code Carts (emergency trolleys) as deliberated by the Code Team to help reduce the risk that intubations done in the nursing wards may have no accidental extubations prior to the transfer of the patient to ICU or other units.

**CONCLUSIONS AND RECOMMENDATIONS**

Based on our clinical investigation, from the initial usage of the device we found distinct advantages compared to our other previous methods of ETT securement. It has reduced the incidence of unplanned and accidental self-extubation of our patients in the critical care and ICU settings, and also decreased the incidences of MARSI. Of course, as with any new device, proper product training is required to mitigate chances of incorrect product application and optimise device usage. The promising results led to our institution including this method of management in the hospital guidelines.

While I would like to recommend as a clinician that other institutions make their own guidelines specifically for unplanned extubation of ETTs, I would have them consider the use of this device given the benefits our institution has gained from its adoption when it comes to patient safety in

### Table 1: Results

<table>
<thead>
<tr>
<th>UNPLANNED ET EXTUBATION</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>MEDICAL ADHESIVE SKIN RELATED INJURY(ET RELATED)</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Total number of intubations for 2016: 20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Total number of unplanned extubations: 0 (Jul–Dec)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Incidence rate: 0% (Jul–Dec)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Total number of ET days: 161 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Period when the device was introduced
the critical care setting. Further studies pertaining to this device may also contribute to better awareness of other health care providers when it comes to the importance of oral ETT securement.

REFERENCES


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5. AnchorFast is a registered trademark of Hollister Incorporated, Libertyville, IL, USA

ACKNOWLEDGEMENT

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Stomal Therapy Nurse

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Adelaide, Australia
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Stomal Therapy Nurse

Ms Vicki Patton
Sydney, Australia
Clinical Nurse Consultant, Pelvic Floor Unit, St George Public Hospital

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<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WCET Members</td>
<td>RM 2,200</td>
<td>RM 2,400</td>
<td>RM 2,600</td>
</tr>
<tr>
<td>WCET Non Members</td>
<td>RM 2,700</td>
<td>RM 2,900</td>
<td>RM 3,100</td>
</tr>
</tbody>
</table>
Malaysia Fast Facts

COUNTRY
The Federation of Malaysia comprises Peninsula Malaysia and the states of Sabah and Sarawak on the island of Borneo.

POPULATION
31 MILLION OF MALAYSIS CHINESE, INDIANS, INDIGENOUS & OTHERS

LANGUAGES
BAHASA MALAYSIA is the national language and ENGLISH is widely spoken. The ethnic groups also speak various languages and dialects.

TIME
8 HOURS ahead of GMT and 16 HOURS ahead of U.S. Pacific Standard Time

CLIMATE
TROPICAL HIGH : 32°C (90°F)  LOW : 21°C (70°F)
ANNUAL RAINFALL: 2,000mm – 2,500mm

CURRENCY
MYR known as Ringgit Malaysia (RM) locally

BANKING HOURS
9:00am – 4:30pm (Monday – Friday)
Automated Teller Machines (ATM) are available at convenient locations throughout the country.

SHOPPING & DINING OUT HOURS
Most shopping malls and restaurants are open from 10am – 10pm all week; pubs from 5pm – 2am.

VISA

ELECTRICITY SUPPLY
220 – 240 VOLTS AC at 50 cycles per second. Power sockets employ the Type G plug (British)

LODGING
Wide range of selections, from budget to international 5-star/boutique hotels and apartments.
(4-5 star hotel ranges from MYR650 per room per night with breakfast)

INTERNET
WiFi is widely available at exhibition centres, hotels, cafes, and shopping malls.

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“The elastic limit”: Introducing a novel concept in communicating excessive shear and tissue deformation

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ABSTRACT

This paper is intended to be educational for health care professionals. The authors purposefully take a unique engineering position to introduce and explain the elastic limit of a steel structure, and propose that human skin cells, too, have an “elastic limit”, or a point at which cells are no longer able to withstand stress. When a steel structure reaches its elastic limit, the elasticity of the material enters the plastic region and will no longer return to its original form. Similarly, when a skin cell reaches its elastic limit, it deforms and dies. The elastic limit of skin cells also helps explain how skin wrinkles are caused in tissue by excessive shear; a skin wrinkle forms when the elastic limit is reached, exhibiting that the shear stress has exceeded the shear strength of the skin. Connective tissue transfers the forces to underlying tissue, which affects deep tissue cells and causes them to reach their elastic limit, often resulting in deep tissue death. Deep tissue death, which can occur at Stage III, Stage IV, or Unstageable pressure injuries, is severe and traumatic for a patient; thus, understanding how dressings reduce the force-limit to the elastic limit of skin cells could help optimise the continuous clinical knowledge of prophylactic dressings. Further testing on the elastic limit concept and its connection to wrinkles and pressure injuries is recommended.
INTRODUCTION

This discussion is intended to introduce new terminology into the medical field for the purpose of educating nurses and other health care professionals as to how the forces applied to the skin initiate damage. The authors recognise and disclose that the processes discussed are simplistic and generalised. Realistically, the forces, stresses, strains and conditions of patients confined to severe inactivity and stagnation in a bed, wheelchair and so on are much more complicated. The typical stresses of shear, the normal force applied to the skin (pressure), cross-sectional bulk shearing, rolling shear displacement, dressing elastomeric shear, displacement, and volumetric containment all affect the elastic limit of skin cells in different ways. The patient’s hydration, tissue turgor, age, collagen levels, interstitial fluids, race, co-morbidity and genetics also affect the elasticity of the skin. The authors propose that clinical interactions, further testing and research on the elastic limit of skin should be performed to determine more precisely the interactions between these factors and the contribution of individual factors.

THE TRADITIONAL ELASTIC LIMIT

“Elastic limit” is an engineering concept used to define a material’s strength. To determine the elastic limit, force is applied to each end of a material, like in the dog-bone sample of a material in Figure 1.

As force is applied to the material, the strain (the amount of elongation or deflection of the material) rises. Stress/strain curves show the material’s strength, where “stress” is the force divided by the area and “strain” is the amount of elongation or deflection of the material (length divided by the original length; Figure 2).

The stress/strain curve in Figure 2 shows a material’s elastic region and plastic region. The elastic region is the region of the stress/strain curve in which the material will return to its original shape when the stress is removed. Once a material has reached its elastic limit, or yield point, it enters into a plastic region. Once here, the material is permanently deformed. Therefore, engineers and architects commonly design structures to work in the elastic region to ensure that a structure retains its size and shape.

THE ELASTIC LIMIT OF THE SKIN

Human skin has a similar ability to stretch to a certain point and then return to its natural form. Traditional tests on the elasticity of human skin, usually involving tensile samples taken from cadavers, are depicted in stress/strain curves similar to those of structural materials. Figure 3 is a graph that proposes a typical stress/strain curve for human skin.

The skin’s stress/strain curve is a reversed mirror of the structural steel’s curve. The structural steel in Figure 2 starts out with a high stiffness, or a steep slope, of the elastic curve, meaning, it takes a relatively large stress to deflect or elongate the object while it is in the elastic region. However, in Figure 3, the slope of the skin starts out very horizontal, indicating that the stiffness is low and it takes a relatively small amount of stress to cause damage to the skin, perhaps even before it reaches its technical elastic limit.

In each stress/strain curve, the stiffness is shown as the slope of the line moving along the elastic region to the plastic region; a higher stiffness is represented by a more vertical line.
and indicates that it will take a large force to cause a small strain (Figure 2), while a lower stiffness has a more horizontal line and indicates that a small force will cause a large strain (Figure 3). Because it takes such a small amount of force to deflect the skin, a relatively small strain easily damages skin cells, and at the deep tissue level, this damage often results in pressure injuries.

Because steel is inanimate and skin is biologic, the comparison of the two breaks down quickly. The elasticity, or modulus, is what defines the difference between skin and steel. While steel’s molecules do not change under stress until the material reaches its elastic limit, skin is much more elastic, yet skin cells under stress are deformed and die well before they reach their technically defined elastic limit (the point at which the skin is unable to return to its former shape). Therefore, the authors define the elastic limit of the skin as the point when individual skin cells deform and die due to either prolonged or high amounts of stress. While this definition applies to a single cell, the elastic limit of the cellular aggregate helps us understand how the skin handles stress.

**THE SKIN’S ELASTIC LIMIT AND PRESSURE INJURIES**

Studies have indicated that prolonged external pressure causes deep tissue damage, which is the main cause of pressure injuries. In 2009, Gefen wrote, “To understand the etiology of deep tissue injury, health professionals should be able to predict whether or not a certain state of internal mechanical loads in deep tissues, such as tissue deformations and forces per unit area of tissue, would lead to localized irreversible cell damage.”10 The concept of the cell’s elastic limit provides an increased understanding of the high occurrence of pressure injuries for long-term hospital patients, especially when a patient’s mobility is restricted due to medical complications.

As previously mentioned, several variables contribute to the skin’s ability to withstand applied forces, including the type of stress, the condition of the skin, and the amount of time the stress is applied. A common example of a typical stress that an immobile patient encounters is when the head of the patient’s bed is up at an angle, and they slide down. In one study, patients sitting up at a 30° angle in bed slide down 29.34 (± 5.53 cm) over the course of two hours, which is a significant amount of shear for fragile skin.5 The combined force and shear are more than enough stress to stretch the skin cells to their elastic limit.

**THE SKIN’S ELASTIC LIMIT AND WRINKLES**

In general terms, skin acts as a cushion for the deeper tissue. However, when the skin is under stress, whether from tension or compression, it eventually reaches a point where it can no longer stretch. When the skin responds to shear displacement, it forms a wrinkle. The apex of the wrinkle blanches where we see dramatically higher distortion forces and stress.

Once the skin has deformed to the point where a wrinkle is created and the aggregate elastic limit has been reached, the connective tissue dispersed throughout the skin cells then transfers the forces to underlying tissue. Because this limit has been reached, forces are delivered to the underlying (deeper) tissue, where they quickly react to excessive stress/strain. This is a complex interaction, as it also involves the fascia and fat, and the different elastic limits that these demonstrate. This process is an example of how forces applied to the skin result in tunnelling and deep tissue injury formation.

For example, when a patient with fragile, wrinkled skin loses his or her balance and a caregiver reacts by grabbing the patient by the arm, the skin will often tear. This tear is a result of the skin exceeding its elastic limit very quickly and with great force. Similarly, a crease in a sheet of paper would represent a skin wrinkle that has been permanently deformed, and when torn (a quick movement exhibiting a large amount of force), the crease in the paper provides a perfect outline for the tear to follow; thus, the natural wrinkles in fragile skin become a skin injury outline.

A similar reaction in the skin happens with supine patients who develop pressure injuries. The shear is not applied as rapidly or with as high a force as a skin-ear, but over time causes displacement wrinkles and deforms the skin. These wrinkles create an initiation point (concentrated skin injury outline) for pressure injuries, where the magnitude of the shear kills the individual cells that have proportionally reached their elastic limit.

**REINFORCING THE SKIN**

Gefen proposes that cells begin to die at approximately 50% strain and the authors propose that the elastic limit of cells is in that range. Skin cells are easily deformed, but, borrowing from the engineering analogy, when a material’s area is doubled, the amount of force it can withstand is doubled (stress = force/area). The same concept applies to skin. Bandages and prophylactic dressings reinforce the skin so that it can withstand a greater amount of force before reaching its elastic limit. Essentially, dressings increase the resistance to skin wrinkles and the skin’s stiffness by reducing the forces and distortion that are applied to the skin cells.

Table 1 is a simple comparison of the effectiveness of dressings in preventing sacral pressure injuries. The comparison was created to examine the impact of dressings on skin cells’ elastic limit, and reviewed published studies on how effectively dressings prevent pressure injuries. These studies were selected based on study size and with the intent to include various dressings in the comparison.
It is recognised that this comparison does not include the precision of meta-analyses such as Huang et al.’s 2015 study\textsuperscript{12}. It is also recognised that various problems come with such a simple approach, including the variety of test procedures and criteria, time frames for the pressure injuries to present, range of age and health of the patients, differing definitions of “pressure injuries” or “deep tissue injuries,” and the potential bias from using studies published only in English. The different types of shear that occur in the studies also impact the results. However, the authors included this comparison as an educational tool to show how different prophylactic dressings assist skin cells in becoming more resistant with their unique elastic limit, thus preventing pressure injuries. A similar comparison can be referred to in the 2013 study by Call et al.\textsuperscript{13}.

We simplified the results of the studies in our comparison, listing only the number of layers in a dressing, the thickness of the dressing, the construction of the layers, and the construction of the dressing adhesive to show the percentage of reduction in pressure injuries with prophylactic dressings. Another study to review would be Black et al.’s paper, looking at how significant pressure injuries are without the use of a protective dressing. Black et al. look at medical device-related pressure injuries caused in long-term hospital patients, where those injuries form, and how protective dressings can help reduce and prevent ulceration\textsuperscript{14}. This study, and others like it, extend the knowledge that prophylactic dressings do, in fact, help strengthen the elastic limit of skin cells.

Ultimately, the layers of the dressing are just one component of what makes a dressing effective, and the composition, materials and other factors of dressings may or may not contribute to holding forces under the skin’s elastic limit. However, it has been found that the addition of a prophylactic dressing on human skin does lessen tissue damage by hindering the skin from reaching the elastic limit and preventing the tissue from wrinkling. Testing on this concept was done by Call et al.\textsuperscript{19} and it was found that the amount of force needed to exceed the skin cell’s elastic limit nearly doubled when a prophylactic dressing was adhered to a model skin system. Further testing is encouraged.

**CONCLUSIONS**

Stress applied to the skin generates deformation. When this deformation reaches the elastic limit at a cellular level, the

<table>
<thead>
<tr>
<th>Dressings</th>
<th>Numbers of layers in dressing</th>
<th>Thickness of dressing\textsuperscript{12}</th>
<th>Construction of the dressing: layers</th>
<th>Construction of the dressing: adhesive</th>
<th>Percentage reduction of pressure injuries</th>
<th>Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mepilex Border</td>
<td>5</td>
<td>N/A</td>
<td>Thin sheet of polyurethane foam, a piece of nonwoven fabric and layer of superabsorbent polyacrylate fibres</td>
<td>Perforated silicone adhesive layer that extends to the outer margins of the dressing</td>
<td>86.96% reduction</td>
<td>Park (2014)\textsuperscript{15}</td>
</tr>
<tr>
<td>Allevyn sacral foam dressing</td>
<td>3</td>
<td>.4 cm</td>
<td>Soft hydrophilic polyurethane foam, semi-permeable polyurethane film, perforated polymeric wound contact layer</td>
<td>Inner surface coated with a hypo-allergenic acrylic adhesive</td>
<td>55.26% reduction</td>
<td>Byrne et al. (2016)\textsuperscript{16}</td>
</tr>
<tr>
<td>Mepilex Border Sacrum</td>
<td>5</td>
<td>.36 cm</td>
<td>Outer membrane, 3 foam layers, Safetac technology pad</td>
<td>Adhesive on the entire inner surface of the dressing — extra adhesive on the border</td>
<td>75% reduction</td>
<td>Santamaria, et al. (2015)\textsuperscript{17}</td>
</tr>
<tr>
<td>Tielle hydropolymer dressing</td>
<td>1</td>
<td>N/A</td>
<td>Single-layer hydropolymer dressing, possessing a low-friction co-efficient, LiquaLock technology pad</td>
<td>Adhesive border on the dressing</td>
<td>76.7% reduction</td>
<td>Bots &amp; Apotheker (2004)\textsuperscript{18}</td>
</tr>
</tbody>
</table>
skin cells die. Further, when the application of force to the aggregate of skin cells (tissue) reaches the elastic limit, the number of skin cells that die is proportional to the magnitude of the force. Research has shown that dressings reduce the distortion by redistributing the forces over a larger area; thus, preventing the distortion of tissues and cells that result in elastic limit-based death. These forces can also be measured using a model skin system, which is critical to help control and understand the effects of these forces on skin cells.

Research on the different stressors and how they affect the skin’s elastic limit will provide nurses and clinical staff with the ability to protect the tissue at risk through reducing friction and force to the tissue/skin cells, give further knowledge on appropriate positioning and repositioning, and further the education on which support surface selection and further the education on which support surface selection will adhere to the prevention of pressure injuries. This will advance work with the skin’s elastic limit and wrinkling. By introducing this new term “elastic limit” into the medical field, nurses and clinical staff will also be able to more quickly assess if their patients’ skin is nearing deterioration through universal communication.

Further, by testing where the elastic limit of skin cells is, health care, overall, will be able to progress further in preventing and hindering pressure injury development.

REFERENCES

19. Call E et al. The Elastic Limit Test. [Internal document].
WCET has members around the globe. Our members are from many religions and cultures as well as climate areas. Since the world’s population travels frequently, it is important for everyone to understand the total needs of their patients. This includes the cultural needs.

In 2014 WCET published an International Ostomy Guideline (IOG). The purpose of this guideline was to provide evidence statements that could be used by countries with either scarce or abundant resources and to focus on cultural, religious and/or ethnic information for the care of ostomy patients that was international in perspective. There were nine evidence statements. Members in nine countries added information about their area’s specific cultural, ethnic or religious needs. We were fortunate to have a cultural expert, Dr Larry Purnell, write the preface.

Literature was reviewed up to 31 May 2013 and put in evidence tables. While this was a daunting undertaking, the final product was excellent. However, new literature is available and it is time to revise the guidelines. Laurent Chabal, Elizabeth Ayello and Karen Zulkowski have volunteered to work on this project. Literature will be reviewed from 1 June 2013 to 31 May 2019.

The team met for four days of work in September and identified and printed out over 100 journal articles to begin reviewing and putting in evidence tables. Previous guideline evidence statements were discussed. While we spent most of each day working, there was some time for fun, including a visit to Pu’uhonua o Hōnaunau National Park. This is a very culturally important area for Native Hawaiians. For more information on this area and its cultural significance, go to https://www.nps.gov/puho/

At the 2018 WCET Congress country international delegates will be asked to identify someone in their country to write about the cultural, ethnic and religious aspects of medical care in general and ostomies specifically. Everyone is invited to participate in this undertaking. We need reviewers, translators and people to identify and review articles in their country or native language that we may not have access to. Please contact me at drkarenzulkowski@gmail.com or editor@wcetn.org or see me at the Congress if you would like to help.
An analysis of the condition of the peristomal skin and quality of life in ostomates before and after using ostomy pouches with Manuka honey

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ABSTRACT
In 2015, 21 Italian stoma care centres recruited 336 ostomates to take part in a study assessing the effect of using ostomy pouches with Manuka honey incorporated into the hydrocolloid flange on damaged or irritated peristomal skin. Each participant was either suffering from peristomal skin complications at the start of the trial or had a history of skin complications affecting their peristomal skin area which was linked to the use of stoma care products. The study looks at how the use of the pouches with Manuka honey influenced the peristomal skin and quality of life of all participants. The results show that 60.99% saw an improvement in their peristomal skin condition and 26.32% recorded an improved quality of life after completing the trial. This would suggest that the use of an ostomy pouch with Manuka honey incorporated in the hydrocolloid flange over this two-week trial had a positive effect on the peristomal skin and quality of life of the participants.

INTRODUCTION
The health and condition of peristomal skin is a major factor in promoting positive outcomes for those living with stomas. Research by Nybæk et al. has shown that ostomates who suffer from peristomal skin complications (such as: faecal dermatitis, mechanical dermatitis folliculitis, psoriasis, allergic contact dermatitis, peristomal pyoderma gangrenosum and other more uncommon conditions) have a less resistant outermost skin layer, which is more susceptible to damage caused by stripping of adhesive materials. Manuka honey, made from the nectar of the Manuka bush (Leptospermum scoparium), was introduced into a range of hydrocolloid flanges on ostomy pouches with the intention that it may help to promote healthy peristomal skin.

The health and condition of peristomal skin has a significant impact on the effectiveness of ostomy products. Nybæk et al. explain that “the peristomal skin plays an important role in the functioning of the whole pouching system, by providing the surface to which it adheres, and skin complications often reduce the base-plates’ ability to attach to the skin; thus the quality of peristomal skin is important”. Any damage to the skin surrounding the site of a stoma could reduce the security of an ostomy product and increase the likelihood of leakage. A study by Woo et al. proposed that, of those ostomates diagnosed with a peristomal skin disorder, 77% could be linked to contact with the stoma’s output but Nybæk et al. put the figure at around 50%. While the exact figures vary, the connection between leakage and peristomal skin health is clearly established in existing literature. Meisner et al. argue that peristomal skin complications can create a cycle where they cause the adhesive of ostomy products to fail, causing leakage, leading to further skin problems.

Peristomal skin complications can cause a wide range of signs and symptoms, which can lead to discomfort, pain, poor self-image, social isolation and impaired quality of life. The World Health Organisation defines quality of life as “a broad ranging concept affected in a complex way by the person’s physical health, psychological state, level of independence, social relationships, personal beliefs”. Meisner et al. argue that the frequency and severity of peristomal skin complications has a major effect on a patient’s quality of life and daily living. Boyles and Hunt support this, stating that complications such as sore skin have a direct negative impact on how ostomates view themselves and live their lives.

This study sets out to assess how significant the introduction of Manuka honey into hydrocolloid flanges of ostomy pouches can be with regard to both peristomal skin health and an ostomate’s quality of life.

OBJECTIVES
The aim of this study is to verify improvements observed in the peristomal skin condition with the use of pouches containing Manuka honey in the hydrocolloid flange compared to participants’ usual pouches and the effect the use of these pouches has on their quality of life. If a correlation is drawn between the use of pouches with Manuka honey and an improvement in peristomal skin...
health, these results may provide potential recommendations for improving the health of damaged peristomal skin. Additionally, if improvements in quality of life can be correlated with the introduction of Manuka honey, this study could help to develop recommendations which may improve the quality of life of ostomates affected by damaged peristomal skin.

MATERIALS AND METHODOLOGY

Historical records of honey being used to treat human skin conditions date back to the earliest civilisations. Manuka honey is made only from the nectar of the Manuka flower in New Zealand and is known to exhibit strong antibacterial properties. Research has shown active Manuka honey to have characteristics that may help to kill bacteria, suppress inflammation, and stimulate the growth of cells, which may aid the healing process. The Manuka honey used in the manufacturing of the trial pouches was certified by the Unique Manuka Factor Honey Association (UMFHA), the group responsible for the Unique Manuka Factor Quality Mark (UMF). This ensures that the Manuka honey used is genuine Manuka honey and meets the standards required by the UMFHA, certifying purity and consistency. All Manuka honey used in the trial pouches had a grade of UMF 16+.

A total of 336 patients took part in the study: 118 of these (35.12%) had colostomies, 96 (28.57%) had ileostomies, 111 (33.04%) had urostomies, 10 (2.98%) had nephrostomies and 1 (0.3%) had both a colostomy and a urostomy. This study, therefore, incorporated a wide range of 1-piece ostomy pouch types with Manuka honey incorporated into the hydrocolloid flange.

The observational examination of the use of these pouches was executed across 21 different Italian stoma centres from May until December 2015. During the study enrolment, the 336 participants were informed about their involvement and their clinical conditions, the features of their usual pouches and their quality of life was evaluated. The attending nurses assessed the health of the participants’ peristomal skin, recording a classification of the skin’s health as well as the type and location of any lesions present. After two weeks of using the trial pouches, the participants’ quality of life scores were recalculated and their clinical conditions and the health of their peristomal skin were reassessed by the nurses. Each participant’s quality of life was evaluated through a stoma quality of life questionnaire which was completed at the point of enrolment and then completed again after the two-week trial period.

Exclusion criteria were established so as to ensure that patients whose skin conditions required treatment beyond that which could be provided by an ostomy pouch and patients whose skin conditions would have been altered by external factors or ongoing medical treatments. Those undergoing chemotherapy or radiotherapy were excluded as were those who were taking medication for their skin because these treatments could alter the condition of the peristomal skin during the trial. Ostomates with parastomal hernias or recessed stomas were excluded because effective treatment of their stoma would have required a Convex or otherwise formed or moulded flange and these variations were not available for this trial.

All of the participants involved in this study were either suffering from skin problems at the start of the trial or had a clinical history of skin problems affecting their peristomal skin area which was linked to the use of stoma care products. At the start of the trial, 85% of participants had acute episodes of these problems ongoing. The area surrounding the stoma was broken up into four quadrants to help record the location and size of peristomal skin complications. Of the respondents, 55.63% recorded that their problem skin was in all four quadrants surrounding their stoma. This could suggest that the issues they have been experiencing with their skin were related to the flange of the pouch they had been regularly using before the trial began.
RESULTS

Response rate
Overall, 336 participants were involved in this study but not all participants provided an answer to every question put to them. Therefore, the number of complete and valid responses to each question (n) varies and the percentages calculated and included in this report are based on the number of valid responses received for each question.

Peristomal skin
Participants were asked to assess how they felt the condition of their peristomal skin had changed while wearing the trial pouch and were given the options of improved, no change and worsened. Of the participants, 60.99% (n=323) said that the condition of their peristomal skin had improved while they took part in the trial, 33.75% felt that there was no change and the remaining 5.26% felt that it had become worse (Chart 1). Of this 5.26%, 35.29% saw an increase in the quality of life score after the trial had concluded, 11.76% had a quality of life score equal to the score given before the trial and 50% said that the flange was comfortable during the trial. However, 64.71% of those who felt that the condition of their peristomal skin had worsened felt that their overall situation had also worsened. Of the 60.99% who felt that the condition of their peristomal skin had improved, 93.4% of respondents described their overall condition as either healed or improved, 92.89% felt that the hydrocolloid flange was either secure or very secure and 68.37% saw an increase in their quality of life score.

Leakage
A significant influence on the health of peristomal skin is the risk of leakage; 49.8% (n=255) experienced leakage with their existing products. In the two-week trial period this was reduced to 18.64% (n=295). A total of 84 participants of this study provided valid responses to both questions on leakage, which showed that they experienced problems with leakage with their normal pouches but did not with the trial pouch. Of these, 79.52% of respondents described their overall condition as either healed or improved, 82.14% of respondents felt that the condition of their peristomal skin had improved and 73.49% of respondents saw an increase in their quality of life score.

Perception of overall condition
At the end of the two-week trial period participants were asked how they would assess the overall status of their stoma and general condition. The options they were given to select were worsened, not changed, improved and healed. A total of 304 participants provided valid responses, 12.17% of these described their condition as “healed”, 55.59% described it as “improved”, 26.97% described it as not changed and 5.26% described it as “worsened” (Chart 2).

Quality of life
The quality of life of participants was assessed and scored through the completion of a validated stoma quality of life questionnaire (Stoma-QOL – Italian version). This comprises 20 statements which were put to each participant and they were asked how frequently in their lives they felt each statement was true (Table 1). All the statements were phrased so as to highlight potential negative aspects of having a stoma; some linked directly to the pouch and stoma, such

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The 20 statements presented to participants which make up the Stoma-QOL, (translated from Italian). Participants were asked how frequently they feel each of these statements are true, with the possible responses being: always (1), sometimes (2), rarely (3) and never (4).
as worrying about odour, noise or security of the adhesive, and some focused on potential negative influences of having a stoma, such as poor sleeping habits, restricting choices of clothing or reducing perceptions of one’s own sexual attractiveness. The possible responses were: always (1), sometimes (2), rarely (3) and never (4). The scores linked to each response were tallied and the resulting figure gives an idea of each participant’s overall quality of life in relation to their stoma at that particular time. The higher the final score, the less a participant feels these negatives are affecting their daily life.

Participants completed the same stoma quality of life questionnaire twice, once before the trial began and then again after the two weeks had come to an end. A total of 286 participants fully completed both quality of life questionnaires. The average total quality of life score for this group before the trial began was 54.41; after the two-week trial this increased to 59.11 (Chart 3). Comparing the total scores before and after the trial for each of these participants shows that 26.32% saw their quality of life scores increase after completing the trial, 62.46% did not change and for 11.23% their score decreased.

CONCLUSION

The results of this study show that the majority of participants, 60.99% (n=323), have seen an improvement in the health and condition of their peristomal skin after using the trial pouch for two weeks. The quality of life score generated by the stoma quality of life questionnaire increased for 26.32% of respondents (n=286) and that the average score rose from 54.41 to 59.11 out of a maximum of 80. This would suggest that the use of an ostomy pouch with Manuka honey incorporated in the hydrocolloid flange over this two-week trial had a positive effect on the health of these participants’ peristomal skin and had a positive effect on the quality of life score generated by the questionnaire selected.

REFERENCES

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