

Smith+Nephew

+ Hwyl Dda All data Report

May 2024

Helping you get **CLOSER TO ZERO** ♦
wasted healthcare resources



Audit Report

Contents

Introduction
Summary

Section A - Provider Details

Fig.1 Team
Fig.2 Location of Clinician
Fig.3 Who treated the wound
Fig.4 Patient Wait Time
Fig.5 Hospital Admissions
Fig.6 Referrals

Section B - Wound Details

Fig.7 Comorbidities
Fig.8 Patient 65+ with comorbidities
Fig.9 Wound Type
Fig.10 Wound Location
Fig.11 Pressure Ulcer Grade
Fig.12 Pressure Ulcer Location
Fig.13 Leg Ulcer by Aetiology
Fig.14 Surgical Indication if wound is dehisced
Fig.15 Wounds by area
Fig.16 Wound by depth
Fig.17 Wound duration
Fig.18 Wound duration by type
Fig.19 Top priorities
Fig.20 Percentage of Tissue Type
Fig.21 Skin surrounding wound
Fig.22 Wound progression

Section C - Dressing Details

Fig.23 Wound dressings used
Fig.24 Wound dressing types
Fig.25 Compression usage by leg ulcer type
Fig.26 Type of compression system by leg ulcer

Fig.27 Change Reason
Fig.28 Change Frequency
Fig.29 Change Frequency by Exudate Level
Fig.30 Change Frequency by Foam Usage
Fig.31 Unplanned Dressing Change
Fig.32 Number of Dressings Used
Fig.33 Dressing Volume by Wound Depth
Fig.34 Dressing Size

Section D - Infection

Fig.35 Number of signs of infection
Fig.36 Signs of infection
Fig.37 Stated infection
Fig.38 Stated infection by count of infection signs
Fig.39 Infection type
Fig.40 Stated biofilm
Fig.41 Antimicrobial usage by stated infection
Fig.42 Antimicrobial type

Section E - Eco

Fig.43 Miles travelled to patient
Fig.44 Miles patient travelled to appointment
Fig.45 Dressing disposables
Fig.46 Disposal of dressing waste
Fig.47 Necessity of visit
Fig.48 Potential for self-care

Introduction

As part of ongoing practice development it is useful to evaluate the burdens wound care can place on a healthcare system. Through evaluating the wound populations, dressing selection and practice it is possible to ensure appropriate dressing usage and practice.

Through this understanding decisions can be made locally which result in patient care improvements and a more efficient use of resources. Practice can be tested against recognised standards, with steps being identified to realign this practice where required.



Methods

A survey of wound dressing practice was undertaken by nursing teams and clinicians involved in wound management. Data were collected on their wound dressing practice using a bespoke survey form, with one form being completed per wound treated. The data were entered into a database and analysed using SNAP survey software.



Survey details

The report was produced on 24/05/24.

Wounds Included In Analysis:

- The report is based on a total sample size of 113 wounds.
- The report is based on a total patient volume of 113 patients.



Objectives

- To provide a general overview of the wound care practice of a team or teams involved in wound care
- To evaluate the type, duration and healing status of wounds currently being treated and the associated utilization of hospital and referral services
- To evaluate the frequency and reasoning behind dressing change practice
- To evaluate the presence and management of local wound infection
- To support targeted education and training in order to promote best practice or to standardise practice across a team or multiple teams

Summary

Across the survey data 113 wounds were documented; the most predominant wound type being Pressure ulcer (30) and Leg ulcer (20). In total 30 pressure ulcers were seen during the survey period.

When evaluating the resource usage associated with wound care, 3 key drivers are the first things to look at when trying to increase efficiency.



The time it takes to heal a wound

It is estimated that the wounds seen over the survey period have an average duration of around 22.8 weeks.

The survey forms asked clinicians to document the healing status of each wound. The data shows that 27 wounds were considered static with a further 7 judged to be deteriorating.

Longer duration and stalled wounds can increase nursing and dressings costs and lead to further complications and strains on the overall healthcare system; whilst 96 wounds did not have a hospital admission in the 12 months prior to the survey, 10 had one hospital visit and 7 wounds were admitted to hospital 2 times or more.

In total 113 wounds had received some form of referral in the prior 12 months.



The frequency of changing dressings

In total 103 dressings were used, an average of 0.9 per wound.

Dressings are currently changed on average 2.5 times per week, "Routine change" was the reason most commonly given for changing wound dressings.

Of the 113 surveyed wounds 16 were being changed more than 3 times per week, 14 of them on a daily basis.

Higher frequency changes increase weekly dressing and nursing costs and have the potential to increase the risk of complications.



The incidence of complications (e.g. infection)

9 wounds were reported infected by the clinician completing the survey. The data shows that 9 wounds considered infected had no antimicrobial dressings recorded in their survey forms yet 13 antimicrobial dressings were used in wounds not considered infected.

Of the 113 wounds surveyed, 65 wounds showed at least one sign of infection. The most commonly observed infection sign was Delayed or non-healing which was seen in 31 wounds.

Wound infections can lead to further complications such as systemic infection and can be a major cause of the first driver, non healing. Infected wounds can also generate high levels of exudate highlighting the need for good dressing practice from the second driver.

The following clinical report analyses all data captured to provide an opportunity to highlight the burdens associated with woundcare and to provide you with an opportunity to seek efficiency gains should they be required.

Section A:

Provider Details

	GP practice	Patient's home	Remote consultation	Residential home
Padarn/Ystwyth	1	14	1	10
Borth/Church	0	18	0	6
Lampeter/Llanybydder	0	15	0	8
Aberaeron Integrated Care Centre	1	12	0	5
Other	0	19	0	3

Fig 1. Teams & care setting
 Of the 113 wounds analysed, 26 did not have a team name documented and 0 did not have a location recorded.

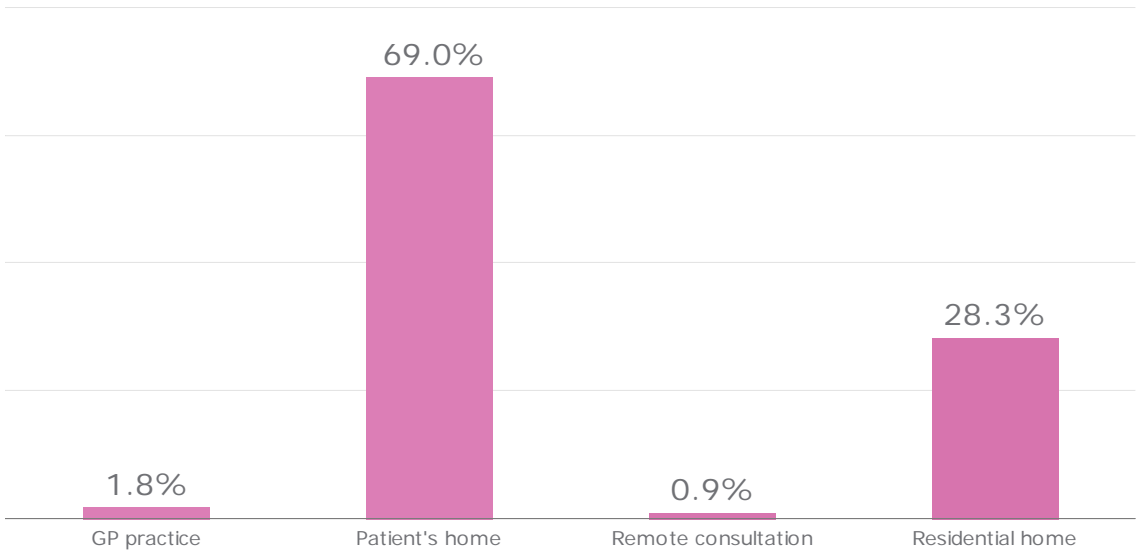


Fig 2. Treatment setting
 Wounds were most frequently treated in the Patient's home (69.0%).

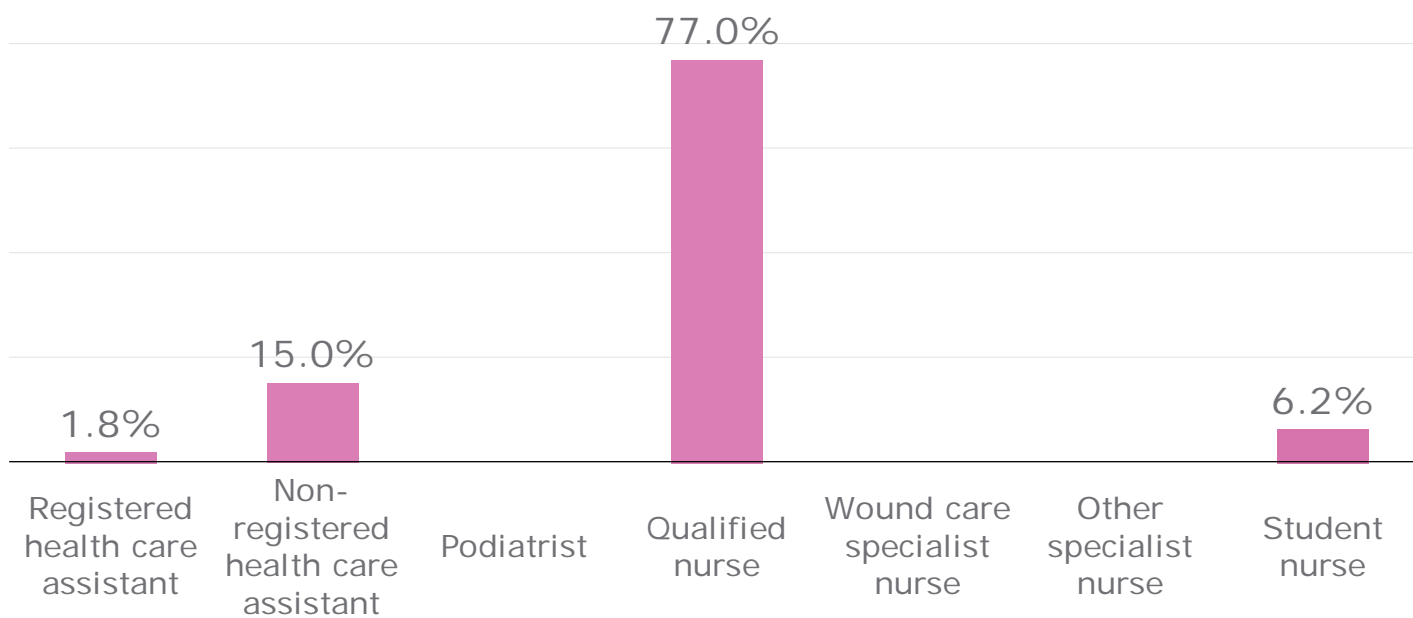


Fig 3. Clinician role

The highest proportion of wounds were treated by a Qualified nurse (77.0%). 0 wounds were treated by more than 1 clinician.

Qualified nurse	87 77.0%
Non-registered health care assistant	17 15.0%
Student nurse	7 6.2%
Registered health care assistant	2 1.8%

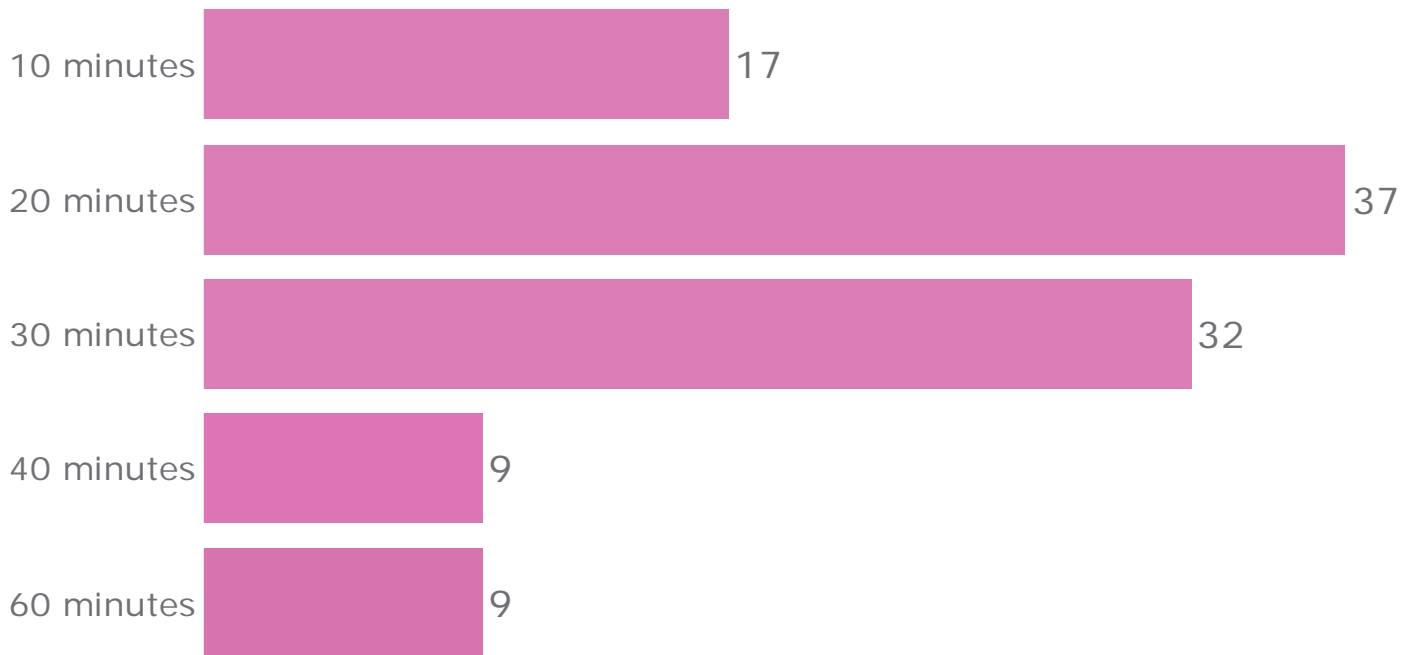


Fig 4. Total time spent at the appointment

This analysis shows the total time the clinician spent with each patient per appointment

10 minutes	20 minutes	30 minutes	40 minutes	50 minutes	60 minutes	70 minutes	80 minutes	90 minutes
17	37	32	9	5	9	2	1	1

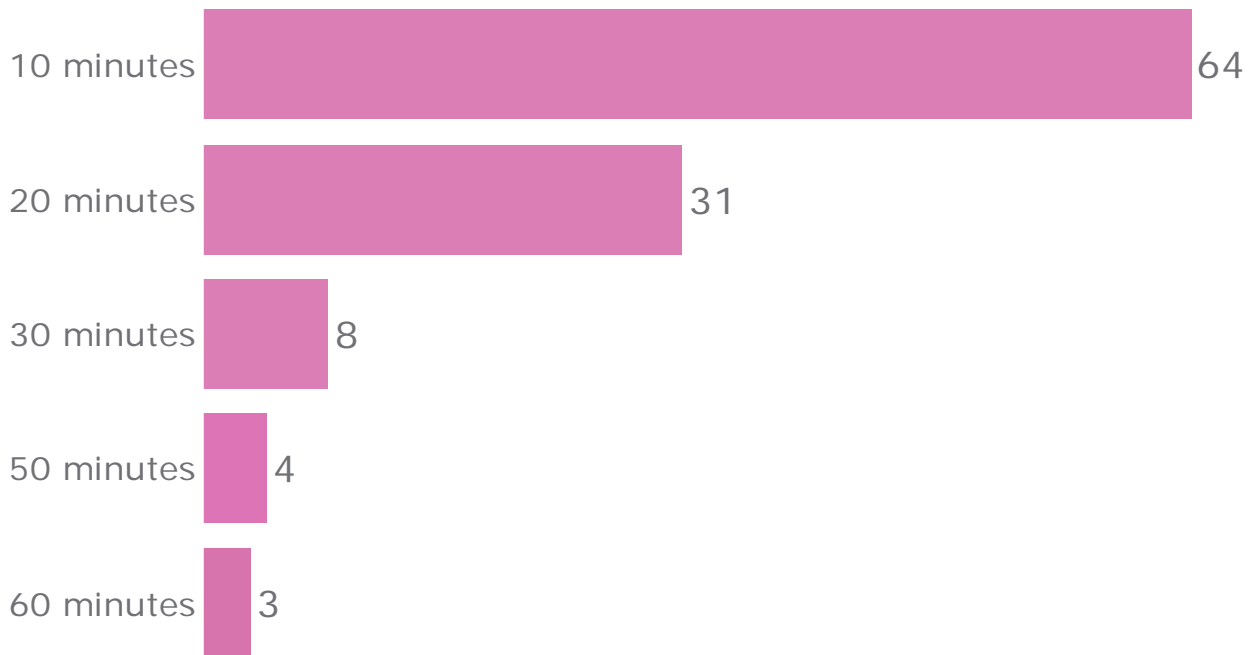


Fig 5. Time spent on wound care

This analysis shows the total time the clinician spent on woundcare with each patient per appointment

10 minutes	20 minutes	30 minutes	40 minutes	50 minutes	60 minutes	90 minutes
64	31	8	2	4	3	1

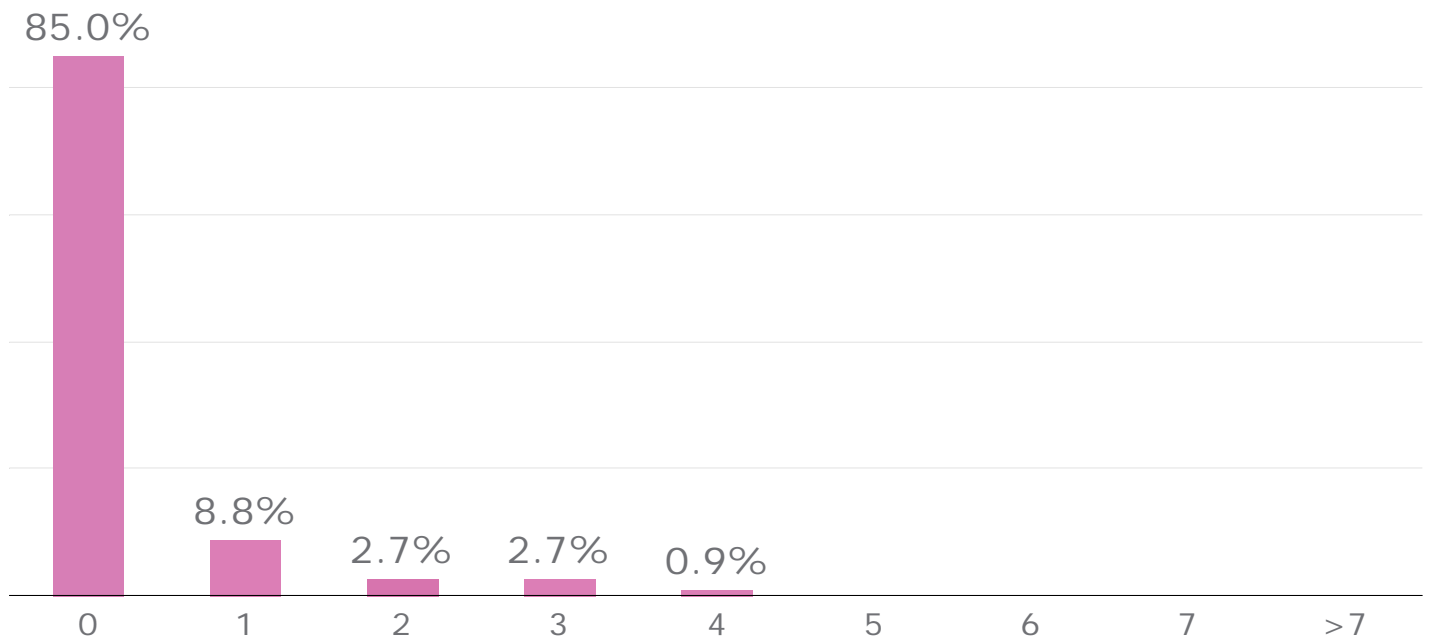


Fig 6. Hospital admissions in prior 12 months

96 patients with a wounds did not have a hospital admission in the 12 months prior to the survey. 7 patients were admitted to hospital more than once.

0	1	2	3 or more
96	10	3	4
85.0%	8.8%	2.7%	3.5%

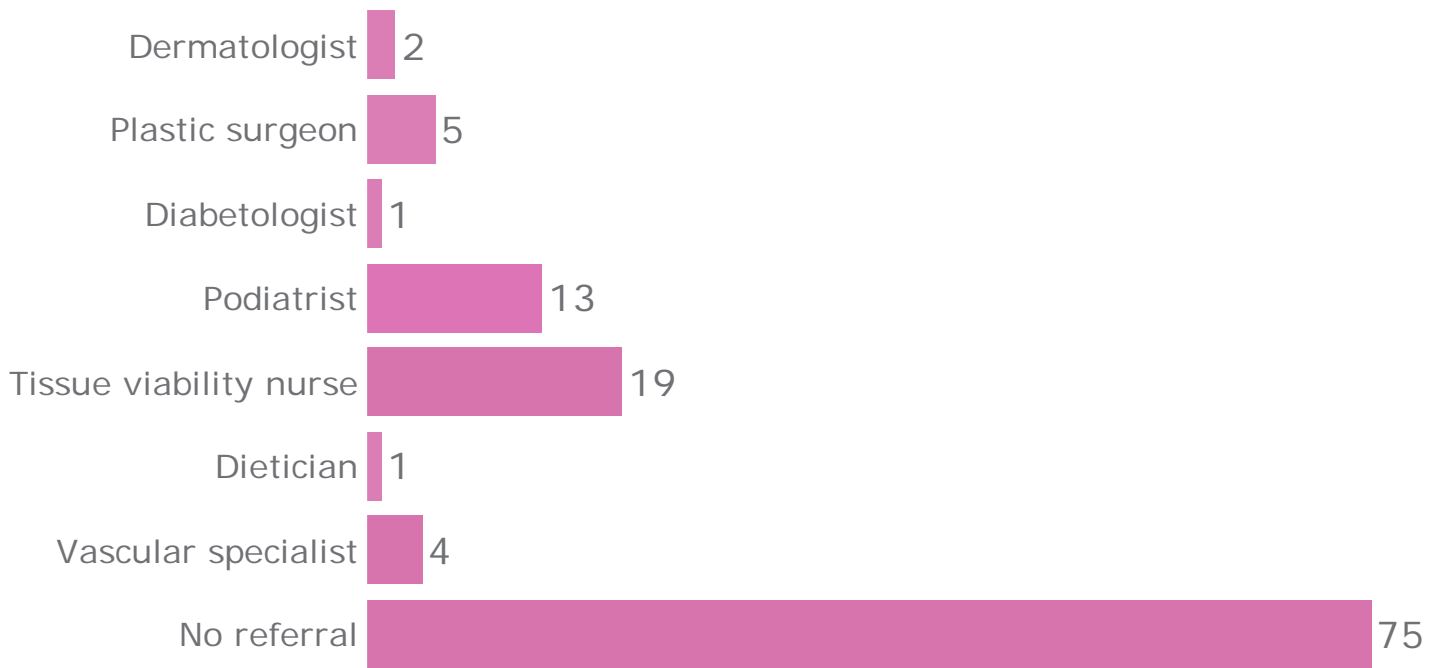


Fig 7. Wound referrals in prior 12 months

In total 113 patients with a wound had received some form of referral in the prior 12 months. The highest volume of these (75) were to No referral.

No referral	Tissue viability nurse	Podiatrist	Plastic surgeon	Vascular specialist	Dermatologist	Diabetologist	Dietician
75	19	13	5	4	2	1	1
66.4%	16.8%	11.5%	4.4%	3.5%	1.8%	0.9%	0.9%

Section B:

Wound Details

The most common comorbidity selected was Poor nutrition and hydration (36). 14 patients had 3 or more comorbidities.

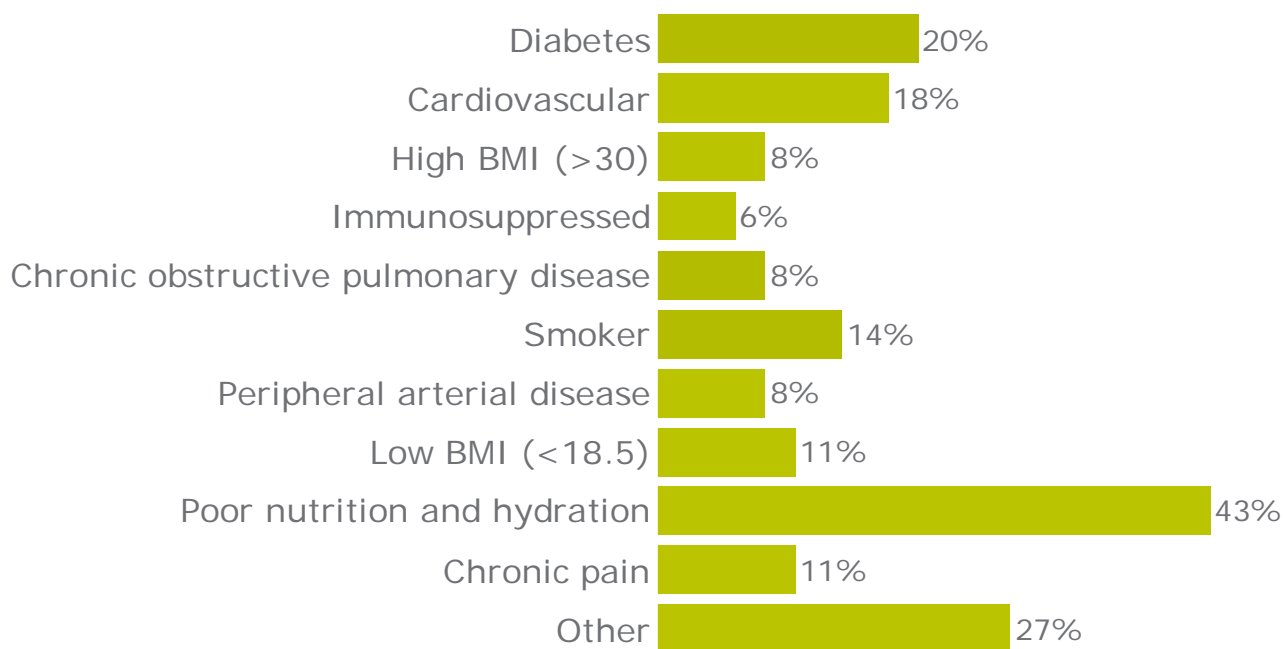


Fig 8. Comorbidities

Poor nutrition and hydration	36
Other	23
Diabetes	17
Cardiovascular	15
Smoker	12
Other	44

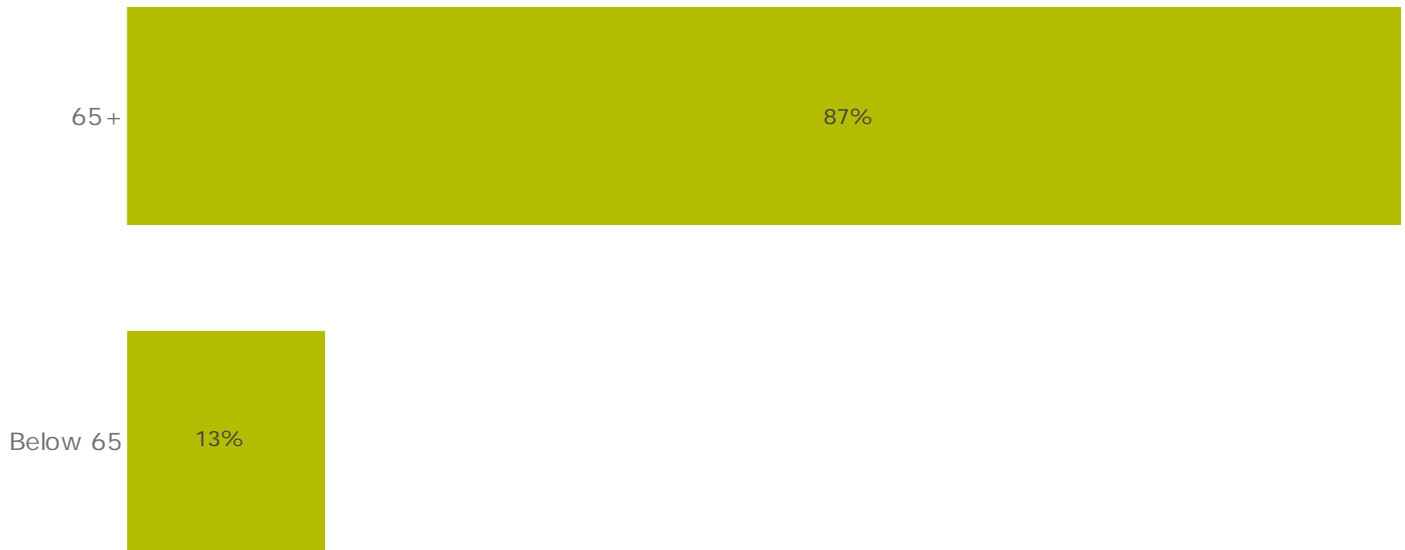


Fig 9. 65+ Comorbidities

The table below shows the most common comorbidities for patients below 65 and 65+.

Poor nutrition and hydration	36
Other	23
Diabetes	17
Cardiovascular	15
Smoker	12
Low BMI (<18.5)	9
Chronic pain	9
High BMI (>30)	7
Chronic obstructive pulmonary disease	7
Peripheral arterial disease	7
Immunosuppressed	5

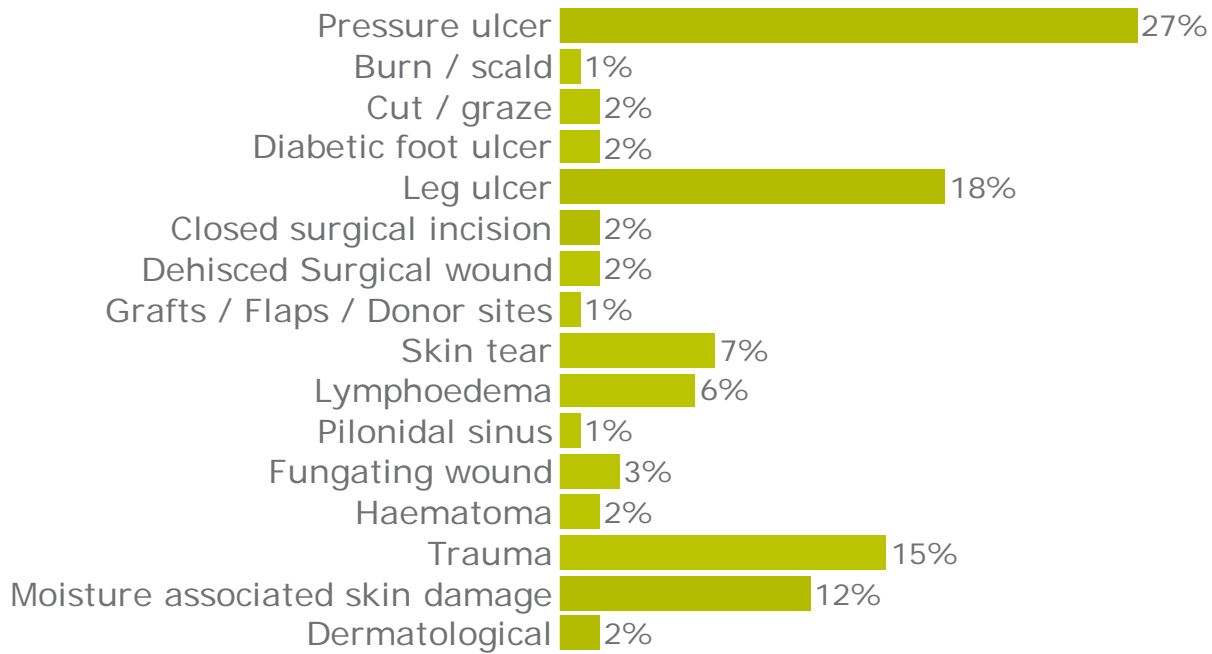


Fig 10. Wound type

The most common wound types were Pressure ulcer (30) and Leg ulcer (20).

Pressure ulcer	30 26.5%
Leg ulcer	20 17.7%
Trauma	17 15.0%
Moisture associated skin damage	13 11.5%
Skin tear	8 7.1%
Other	25 22.1%

Over the survey period, wounds were observed on patients at the anatomical locations shown below.

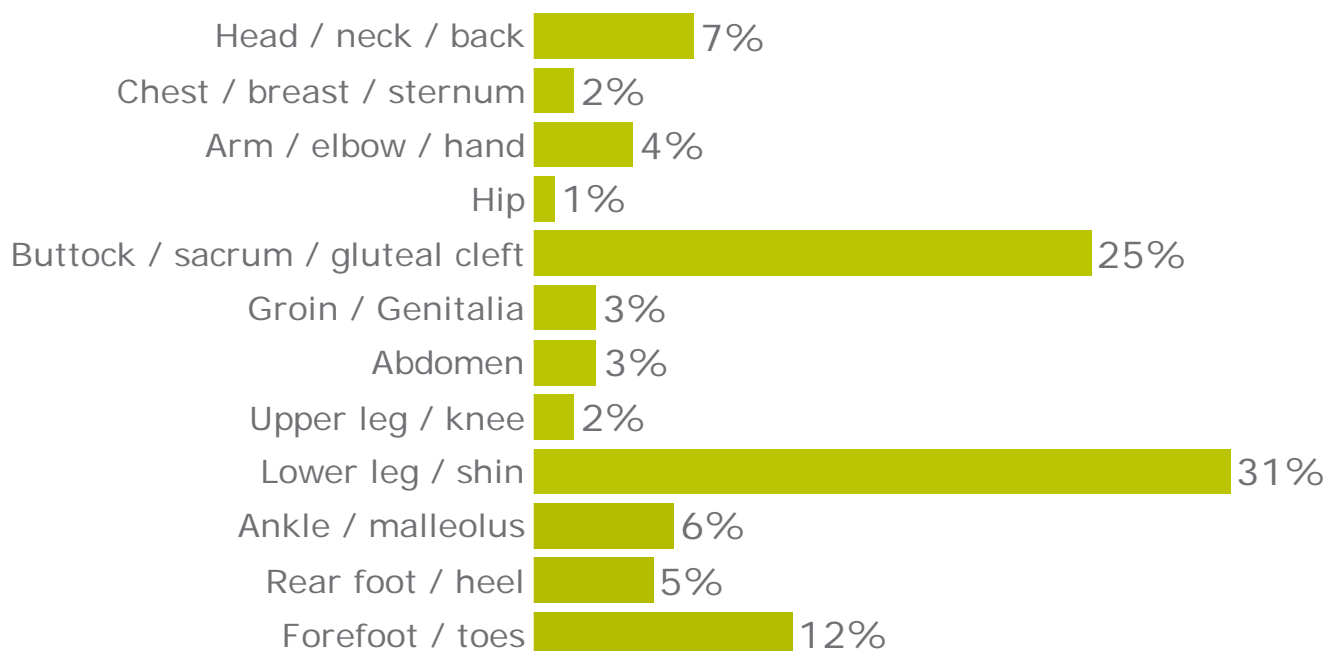


Fig 11. Wound locations

Lower leg / shin	35
Buttock / sacrum / gluteal cleft	28
Forefoot / toes	13
Other	37

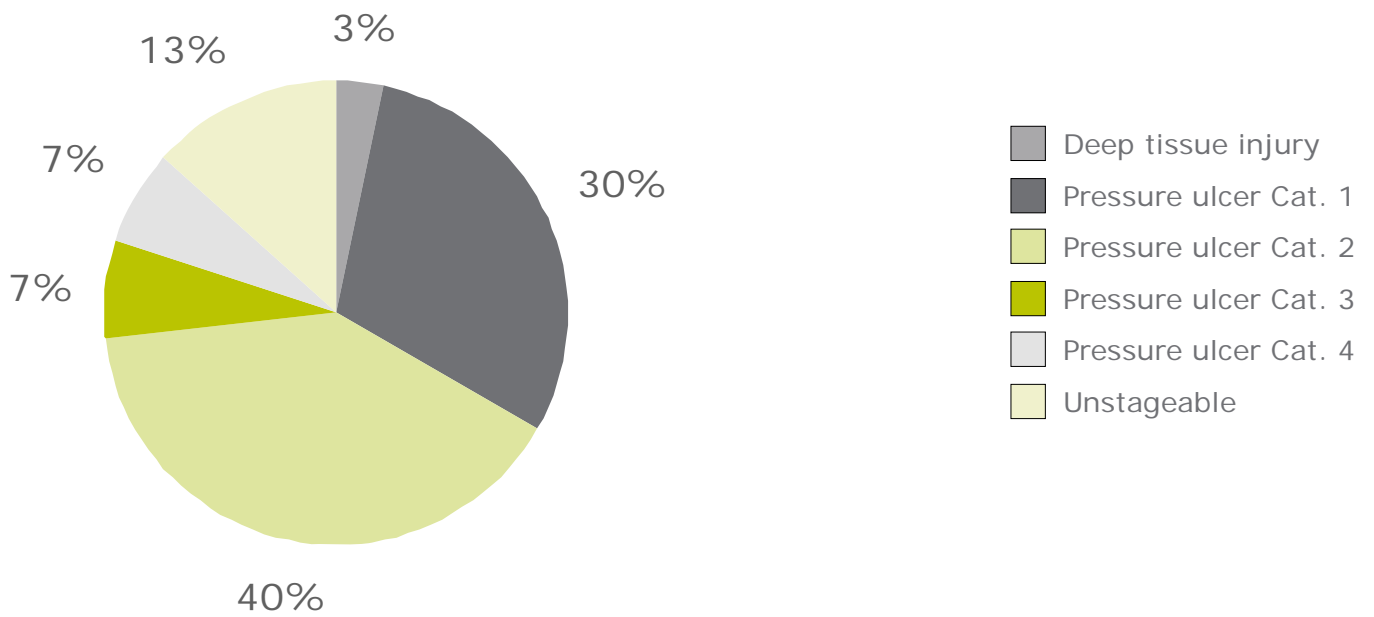


Fig 12. Pressure ulcer by grade

Of the pressure ulcers reported Pressure ulcer Cat. 2 were the most common (12).

Pressure ulcer Cat. 2	12 40.0%
Pressure ulcer Cat. 1	9 30.0%
Unstageable	4 13.3%
Pressure ulcer Cat. 3	2 6.7%
Pressure ulcer Cat. 4	2 6.7%
Deep tissue injury	1 3.3%

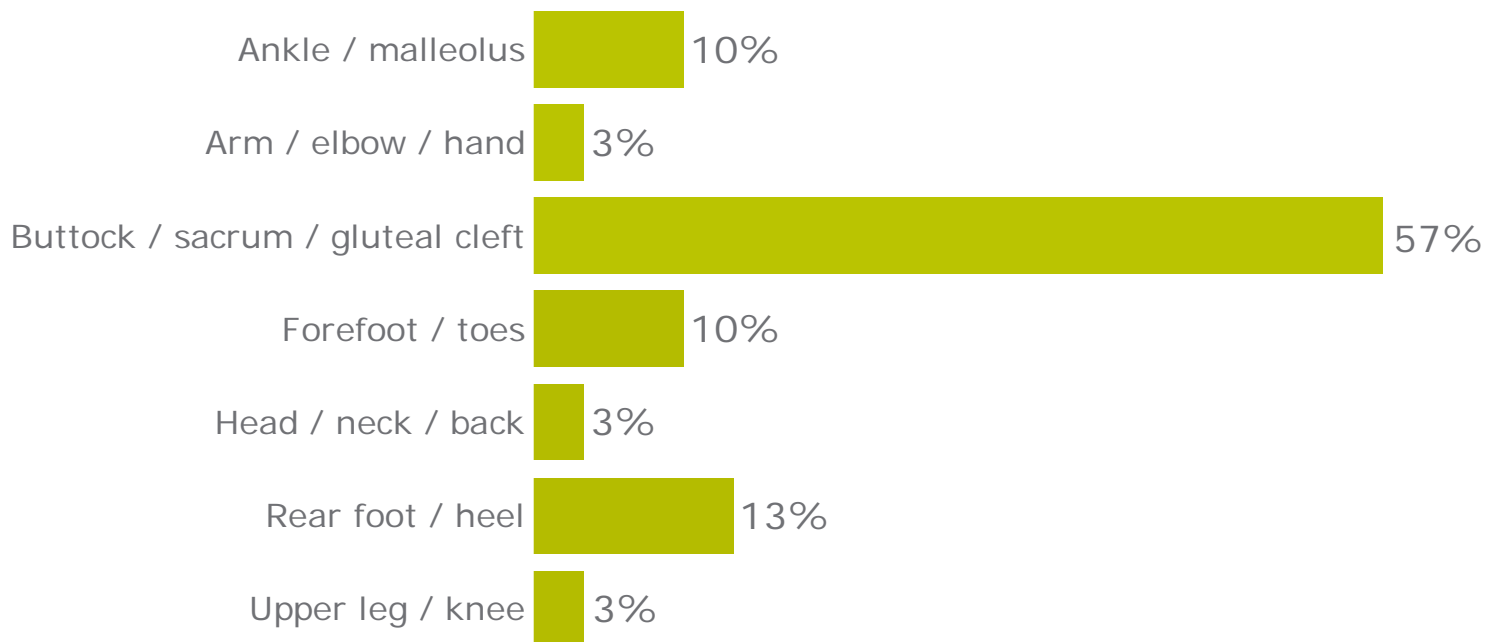
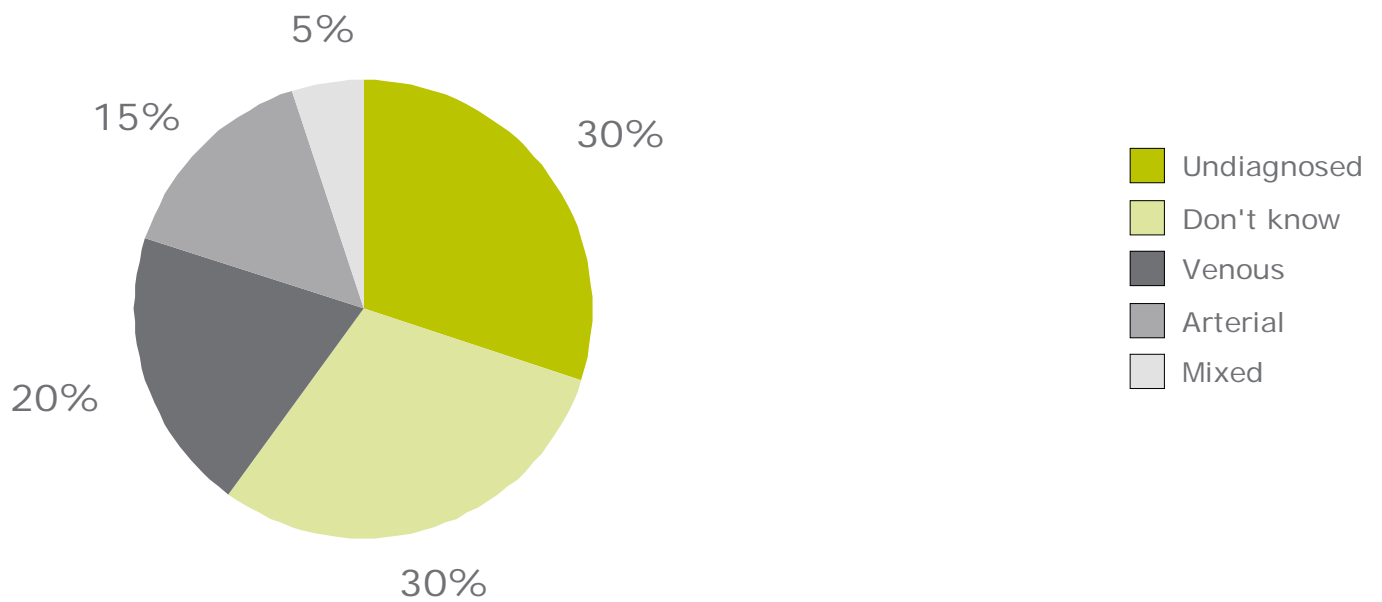


Fig 13. Pressure ulcer by location

Pressure ulcers were most commonly observed on the patient's Buttock / sacrum / gluteal cleft.

Buttock / sacrum / gluteal cleft	17 56.7%
Rear foot / heel	4 13.3%
Ankle / malleolus	3 10.0%
Forefoot / toes	3 10.0%
Other	3 10.0%



Of the leg ulcers reported, Undiagnosed ulcers were the most common (6).

Undiagnosed	6 30.0%
Don't know	6 30.0%
Venous	4 20.0%
Arterial	3 15.0%
Mixed	1 5.0%

Fig 14. Leg ulcer by aetiology



This analysis shows the surgical indications of the wounds reported as dehiscence

Orthopaedics	1 50.0%
Colorectal	1 50.0%

Fig 15. Surgical indication dehiscence wound

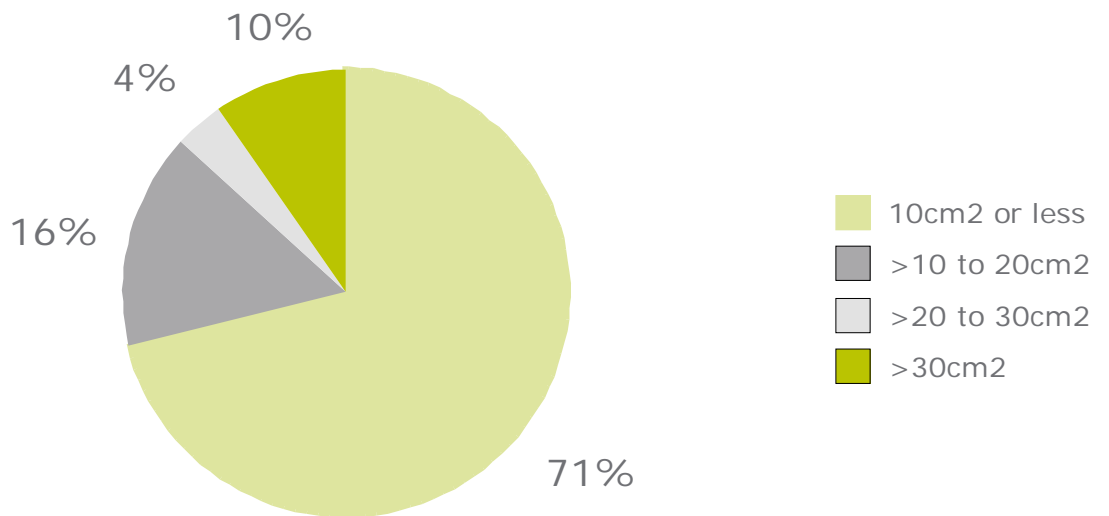


Fig 16. Wounds by area

During the survey period, the majority (79) of wounds were judged to be Superficial. The majority of wounds were measured at 10cm² or less. Wound area calculation was made using an ellipse formula, A cross tabulation of these two measures is shown below:

	10cm ² or less	>10 to 20cm ²	>20 to 30cm ²	>30cm ²
Deep	24 80.0%	1 3.3%	1 3.3%	4 13.3%
Superficial	35 66.0%	12 22.6%	2 3.8%	4 7.5%

Fig 17. Wounds area by depth

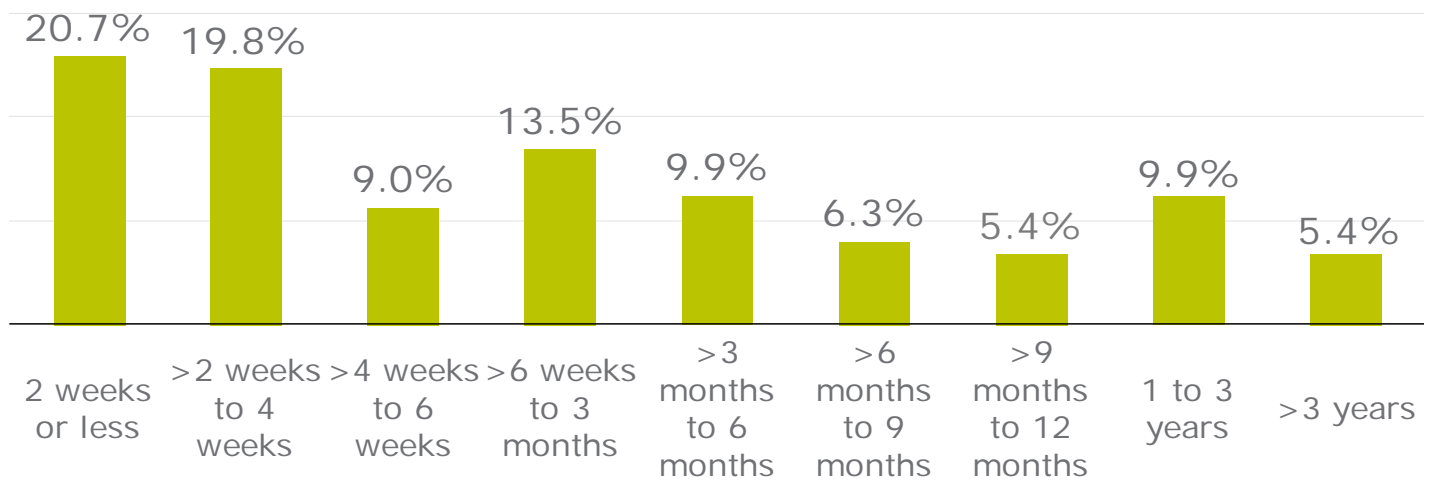


Fig 18. Wound duration

23 wounds had a duration of 2 weeks or less, with a further 22 being 2 to 4 weeks in duration. Of the surveyed wounds 7 were 6 to 9 months old. It is estimated that the wounds seen over the survey period have an average duration of around 22.8 weeks.

2 weeks or less	>2 weeks to 4 weeks	>4 weeks to 6 weeks	>6 weeks to 3 months	>3 months to 6 months	>6 months to 9 months	>9 months to 12 months	1 to 3 years	>3 years
23	22	10	15	11	7	6	11	6
20.7%	19.8%	9.0%	13.5%	9.9%	6.3%	5.4%	9.9%	5.4%

The wound durations seen varied over the surveyed wound types as shown below:

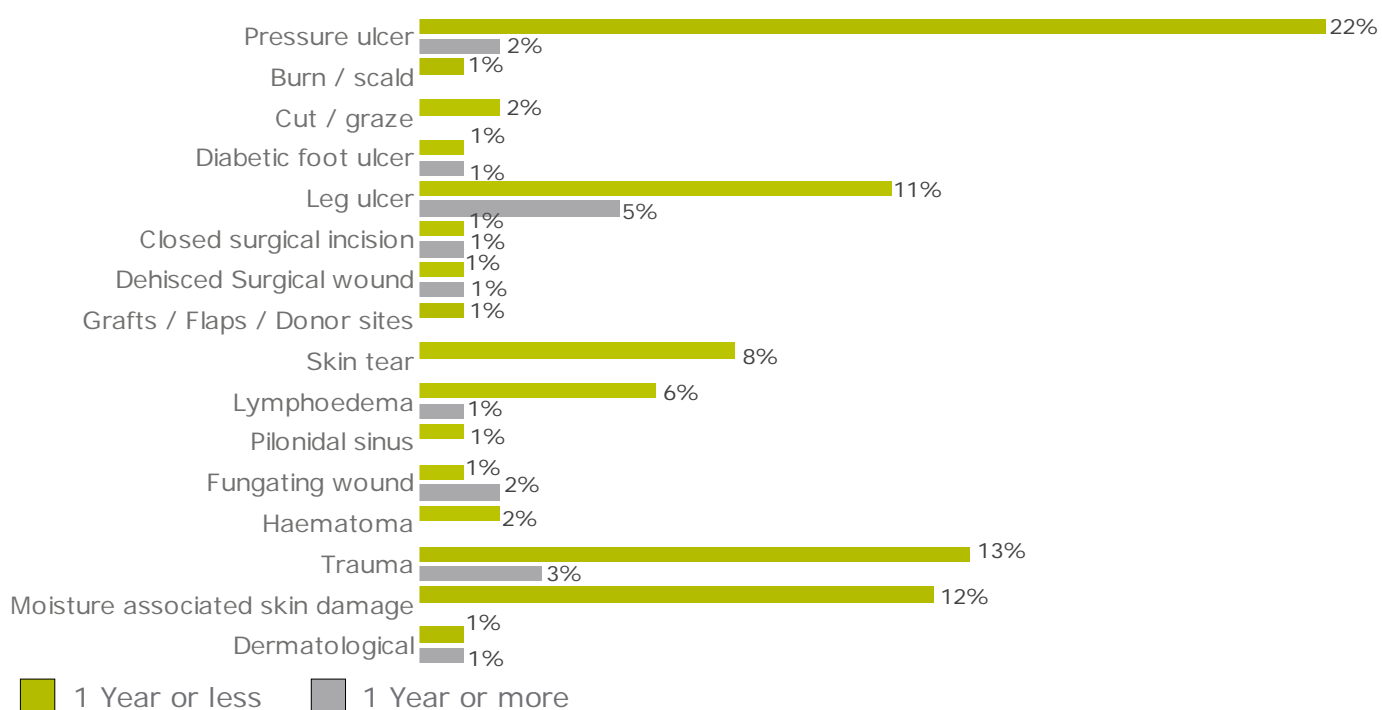


Fig 19. Wound durations by type

	1 Year or less	1 Year or more
Leg ulcer	12	5
Moisture associated skin damage	13	-
Pressure ulcer	23	2
Skin tear	8	-
Trauma	14	3

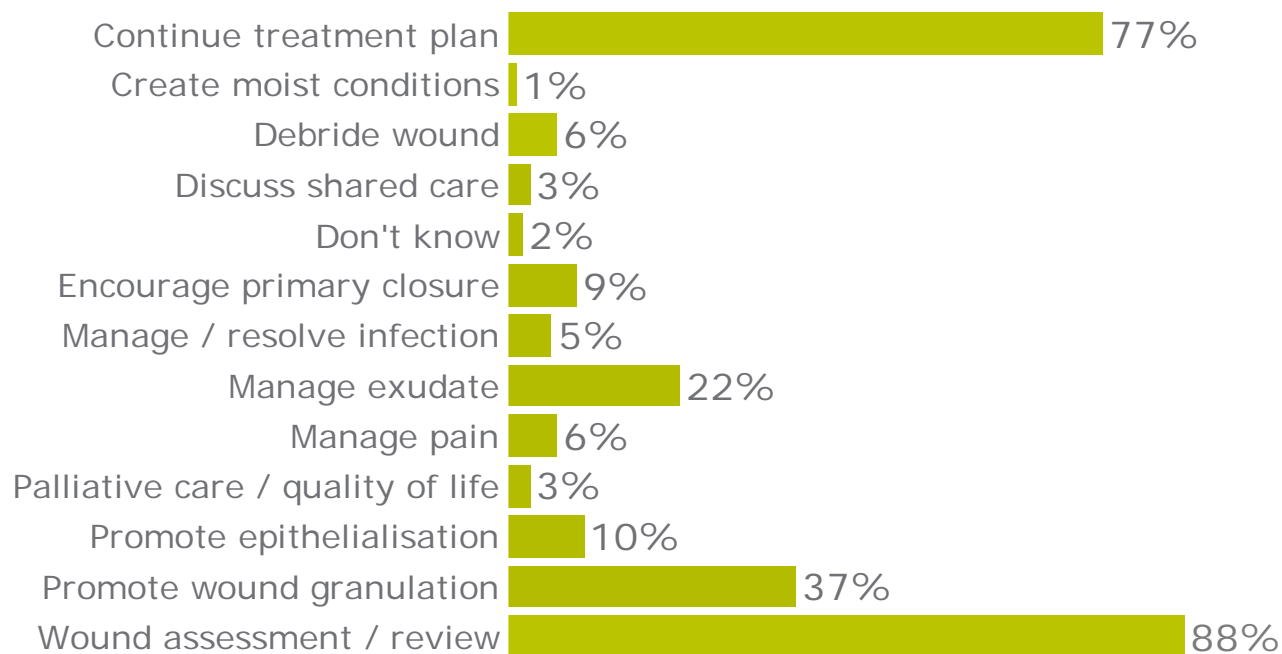


Fig 20. Priorities

This analysis highlights the top treatment priorities.

Continue treatment plan	77.0%
Create moist conditions	0.9%
Debride wound	6.2%
Discuss shared care	2.7%
Don't know	1.8%
Encourage primary closure	8.8%
Manage / resolve infection	5.3%
Manage exudate	22.1%
Manage pain	6.2%
Palliative care / quality of life	2.7%
Promote epithelialisation	9.7%
Promote wound granulation	37.2%
Wound assessment / review	87.6%

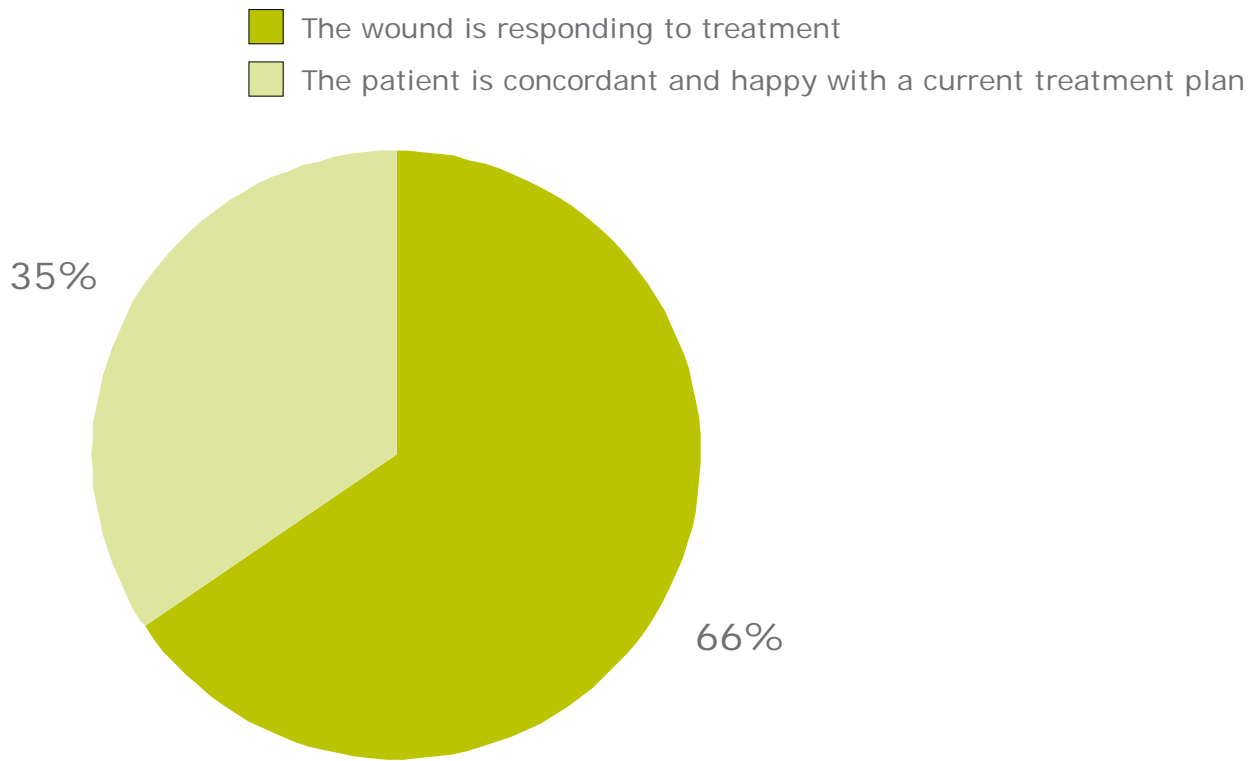


Fig 21. Reason for continuation of treatment plan

This analysis shows the reason the clinician decided to continue the treatment plan, 65.5% answered The wound is responding to treatment

The wound is responding to treatment	65.5%
The patient is concordant and happy with a current treatment plan	34.5%

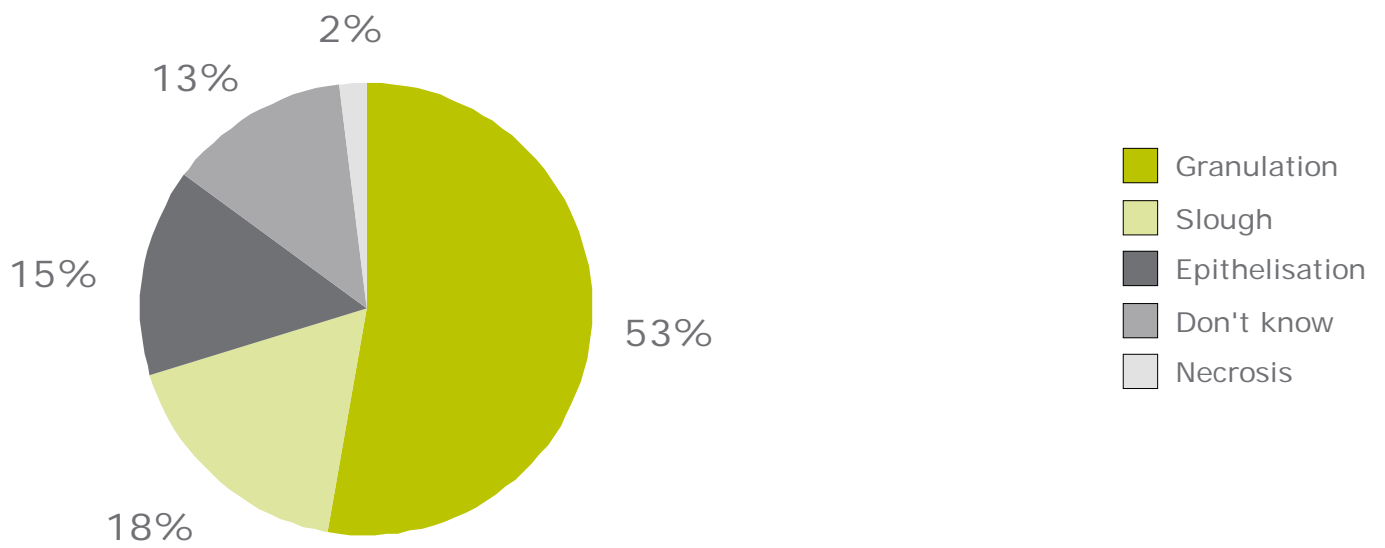


Fig 22. Percentage tissue type

The most prevalent tissue type seen in 52.8% of wounds was Granulation

Granulation	52.8%
Slough	17.6%
Epithelisation	14.8%
Don't know	13.0%
Necrosis	1.9%

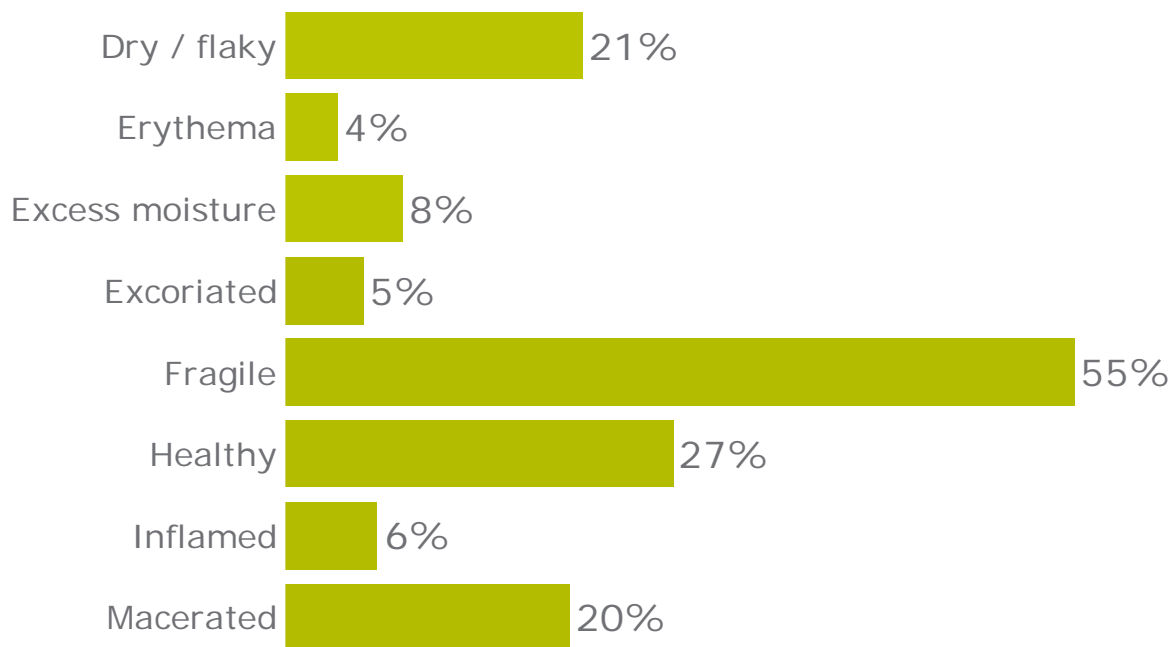


Fig 23. Skin surrounding wound

This analysis shows the differences in the condition of the skin surrounding the wound.

Dry / flaky	20.7%
Erythema	3.6%
Excess moisture	8.1%
Excoriated	5.4%
Fragile	55.0%
Healthy	27.0%
Inflamed	6.3%
Macerated	19.8%

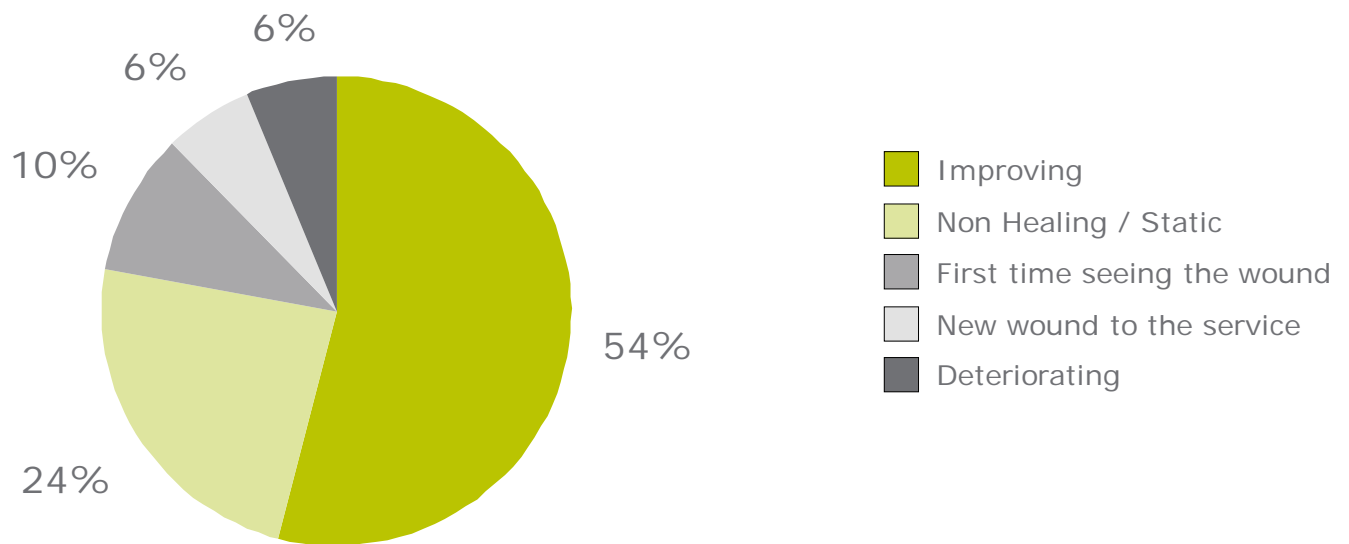


Fig 24. Wound progression

Reporting of the wound status seen showed that 54.0% of wounds were currently improving. 23.9% were considered static, 6.2% were judged to be deteriorating.

A further 9.7% wounds were being seen for the first time.

Deteriorating	7 6.2%
First time seeing the wound	11 9.7%
Improving	61 54.0%
New wound to the service	7 6.2%
Non Healing / Static	27 23.9%

Section C:

Dressing Details

The graphic below shows the variety of dressings used for wound care. The size of the text denotes the frequency at which each dressing was used, the top 10 dressings being listed in the table below. In total 103 dressings were used, an average of 0.9 per wound.



Fig 25. Wound dressings used

Other	27
Other Basic Dressing	22
Inadine	12
Atrauman	11
Other Absorbent	6
Other	25

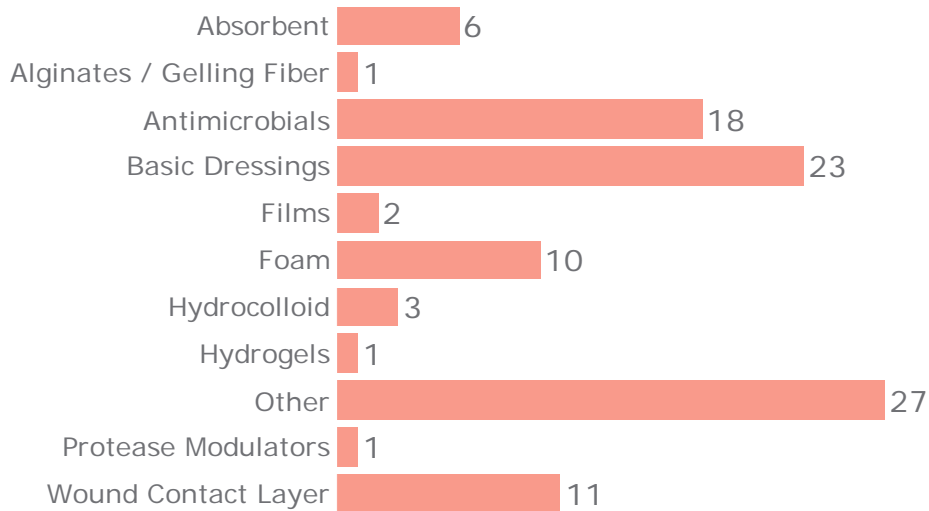


Fig 26. Dressing types

The most commonly used dressings were Other (27), followed by Basic Dressings (23).

Other	27
Basic Dressings	23
Antimicrobials	18
Wound Contact Layer	11
Foam	10
Absorbent	6
Other	8

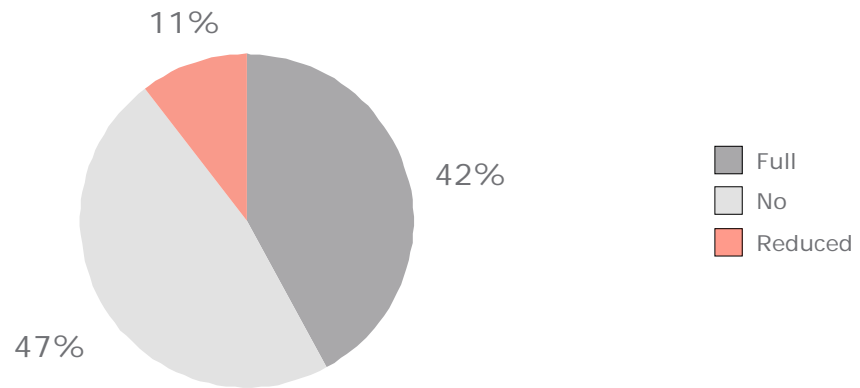


Fig 27. Compression usage by leg ulcer type

Of the wounds documented as leg ulcers, 42.1% patients were receiving full compression, 10.5% reduced compression, with a further 47.4% not currently undergoing any compression therapy.

Full	42.1%
No	47.4%
Reduced	10.5%

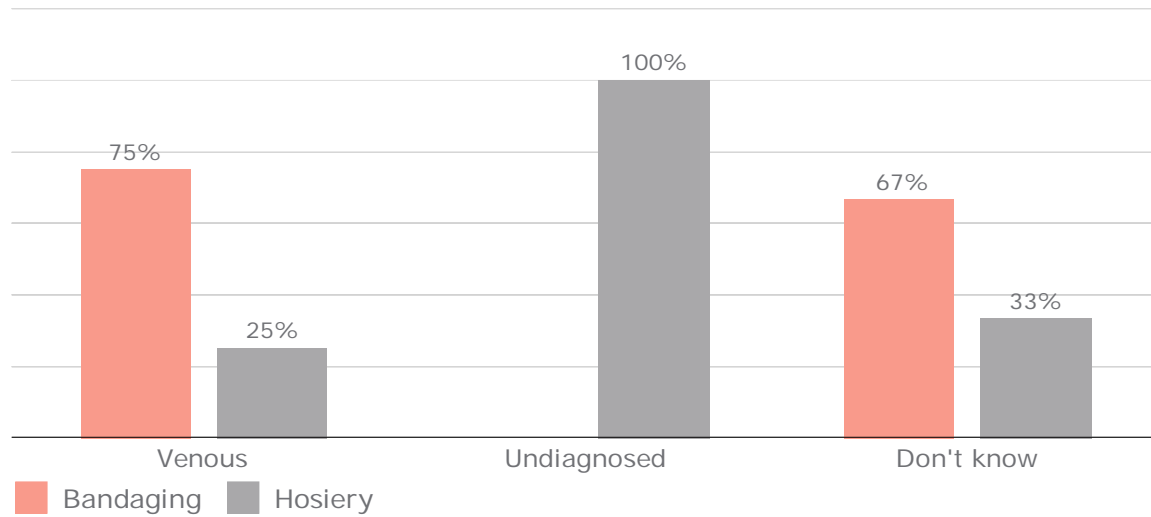


Fig 28. Leg ulcer compression types

This analysis shows which compression systems were applied on the wounds documented as leg ulcers

	Bandaging	Hosiery
Venous	3	1
Undiagnosed	-	2
Don't know	2	1

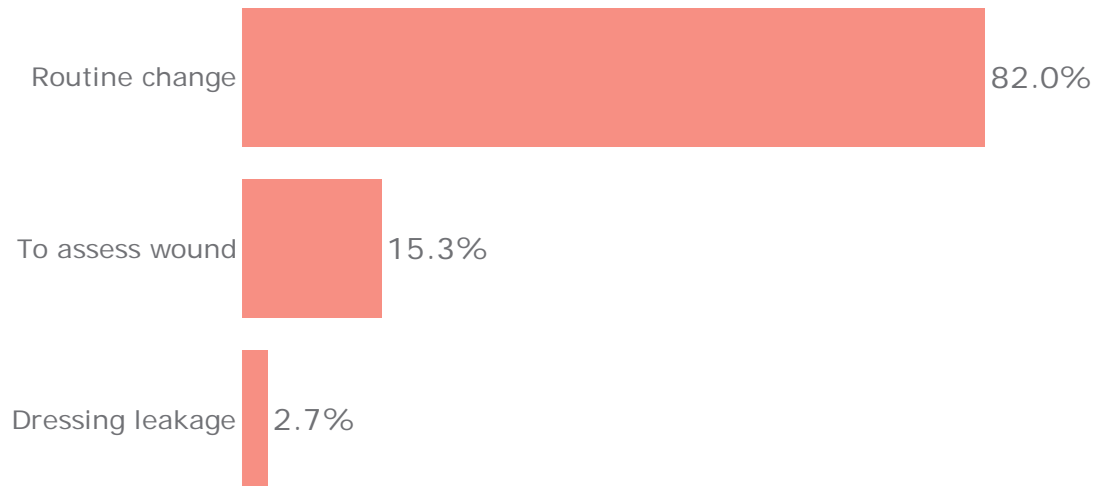


Fig 29. Change reason

"Routine change" was the reason most commonly given for changing wound dressings.

Routine change	91 82.0%
To assess wound	17 15.3%
Dressing leakage	3 2.7%

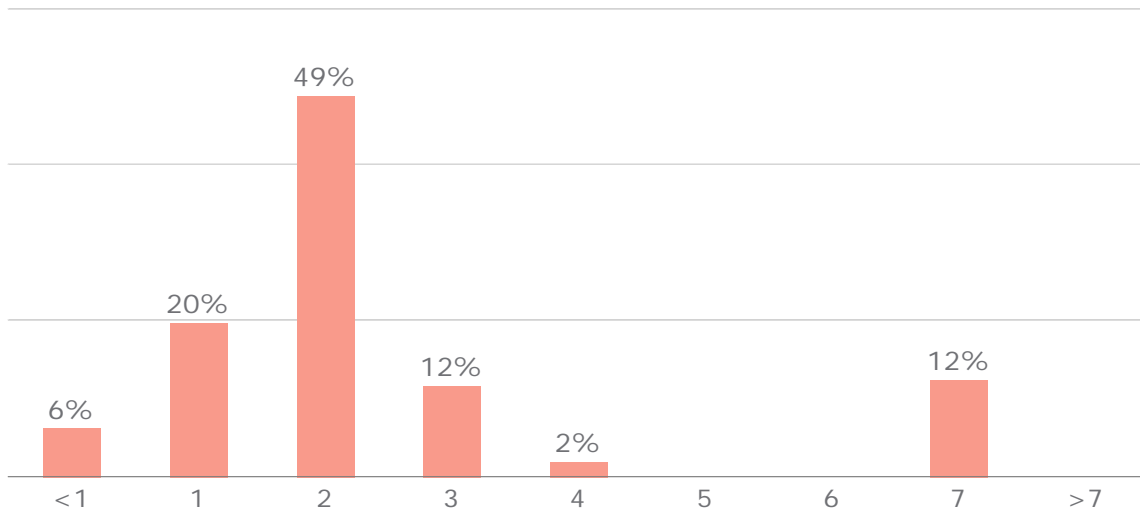


Fig 30. Change frequency

There is a large variability of change frequencies for different wound types, as shown in the table below:

Pressure ulcer	Burn / scald	Cut / graze	Diabetic foot ulcer	Leg ulcer	Tertiary / open surgical wound	Closed surgical incision	Dehisced Surgical wound	Grafts / Flaps / Donor sites	Skin tear	Lymphoedema	Pilonidal sinus	Fungating wound	Haematoma	Trauma	Moisture associated skin damage	Mild Incontinence associated damage	Moderate Incontinence associated damage	Severe Incontinence associated damage	Dermatological	
3.3	3.0	0.8	4.5	2.4		1.3	4.0	2.0	1.9	2.9	1.0	3.7	1.5	1.9	1.7					2.0

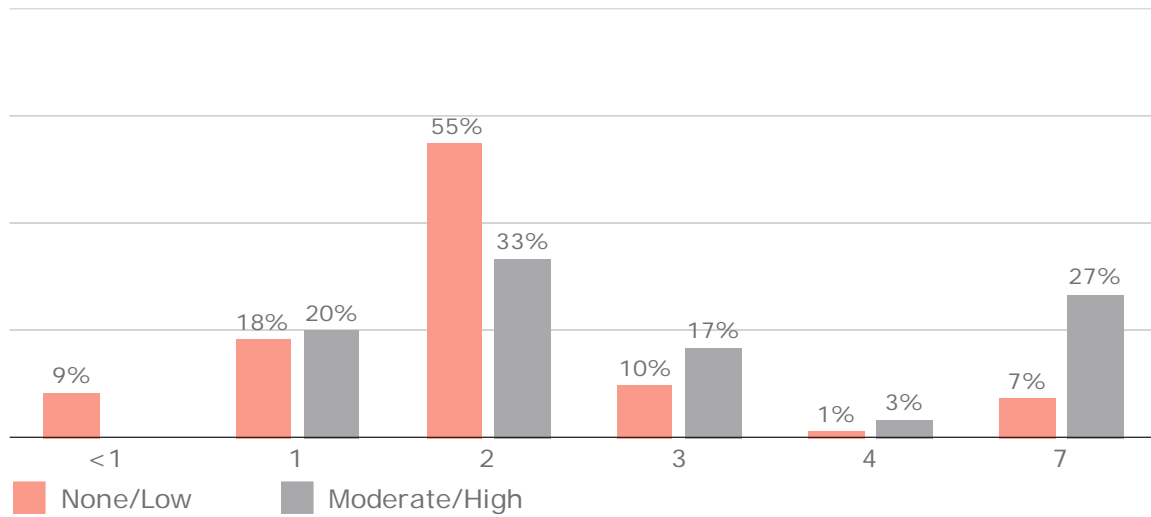


Fig 31. Change frequency by exudate level

	<1	1	2	3	4	5	6	7	>7
None/Low	7	15	45	8	1	-	-	6	-
Moderate/H-igh	-	6	10	5	1	-	-	8	-

The below chart and table show the distribution of change frequencies where foam dressings are used compared to other wounds.

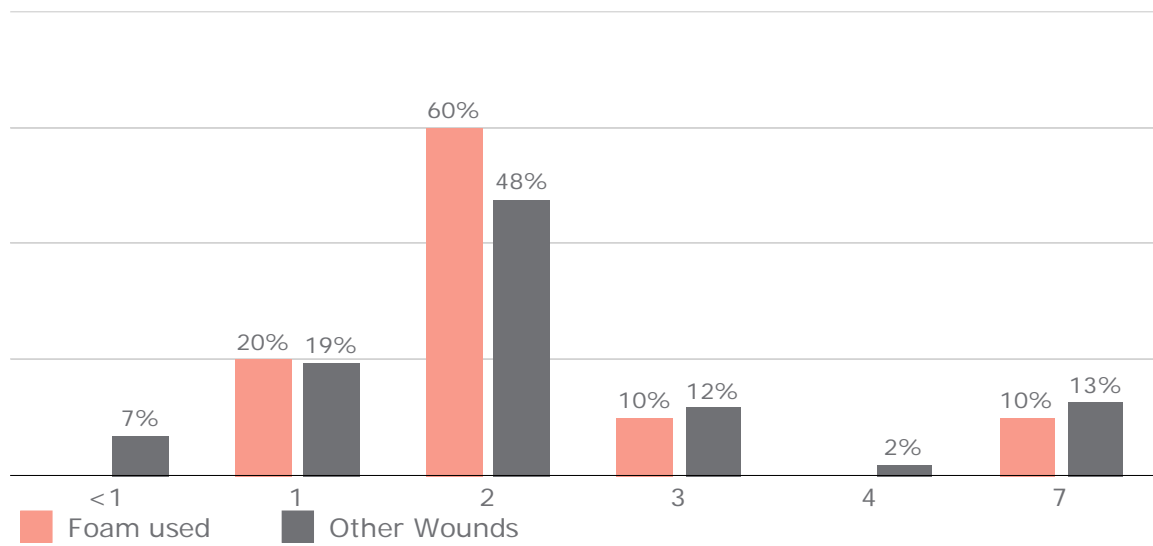


Fig 32. Change frequency by foam usage

	<1	1	2	3	4	5	6	7	>7
Foam used	-	2	6	1	-	-	-	1	-
Other Wounds	7	20	49	12	2	-	-	13	-

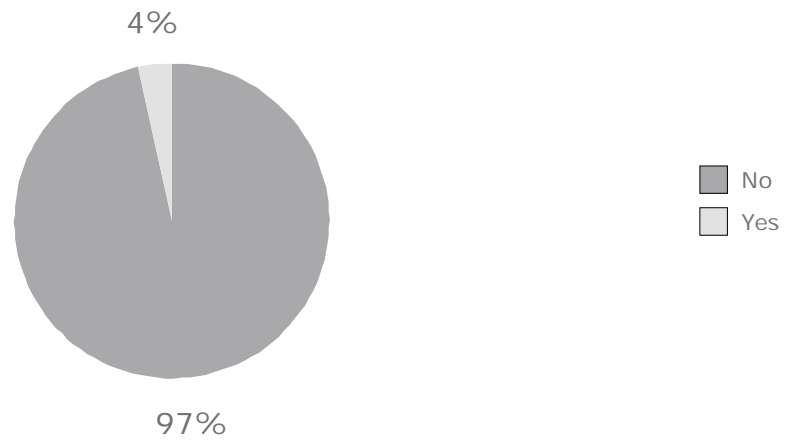


Fig 33. Unplanned dressing change

This analysis shows whether the dressing change was planned on this occasion

No	96.5%
Yes	3.5%

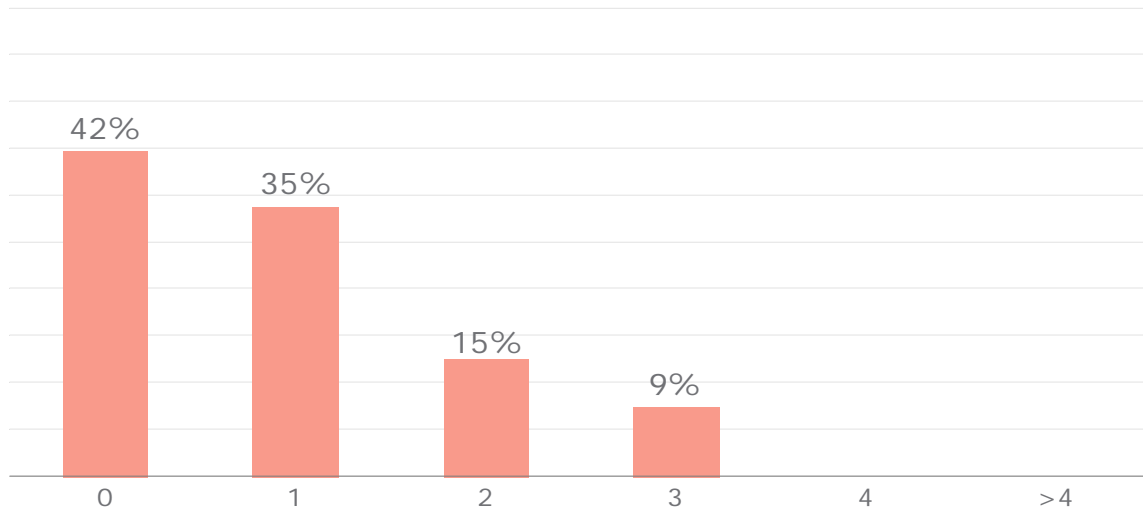


Fig 34. Number of dressings used

The above chart shows the distribution of number of dressings used to treat wounds. An average of 0.9 dressings were used per wound. 47 wounds had no dressings recorded, in some cases this may be due to incomplete data. 0 wounds had 4 dressings documented, 0 had more than 4.

0	1	2	3	4	>4
47	39	17	10	0	0
41.6%	34.5%	15.0%	8.8%	0.0%	0.0%

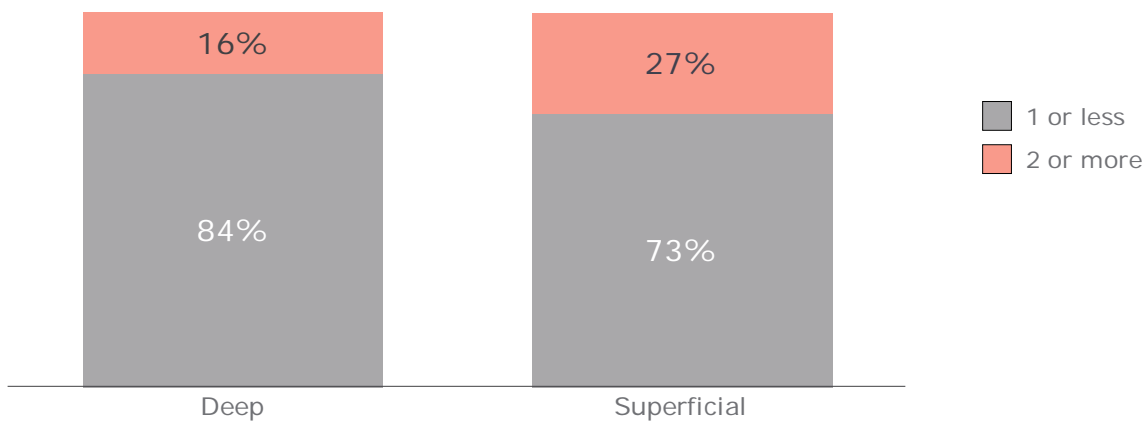


Fig 35. Dressing volume by wound depth

In superficial wounds, 26.6% wounds received 2 or more dressings, compared to 16.1% of those wounds documented as deep.

	Deep	Superficial
1 or less	26 83.9%	58 73.4%
2 or more	5 16.1%	21 26.6%

Section D:

Infection

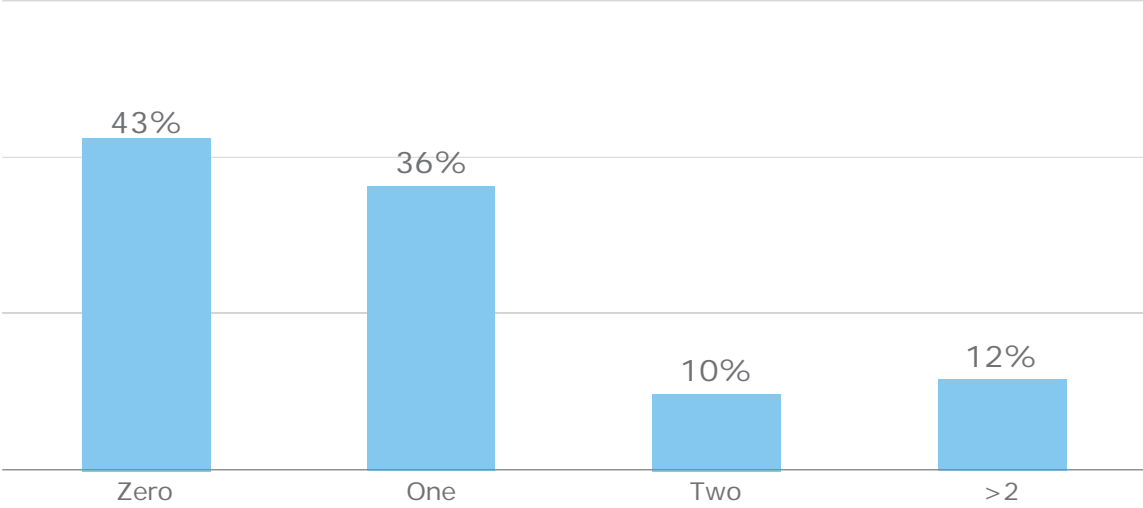


Fig 36. Number of signs of infection

Of the 113 wounds surveyed, 65 wounds showed at least one sign of infection. 48 wounds had no documented signs of infection.

Zero	48 42.5%
One	41 36.3%
Two	11 9.7%
>2	13 11.5%

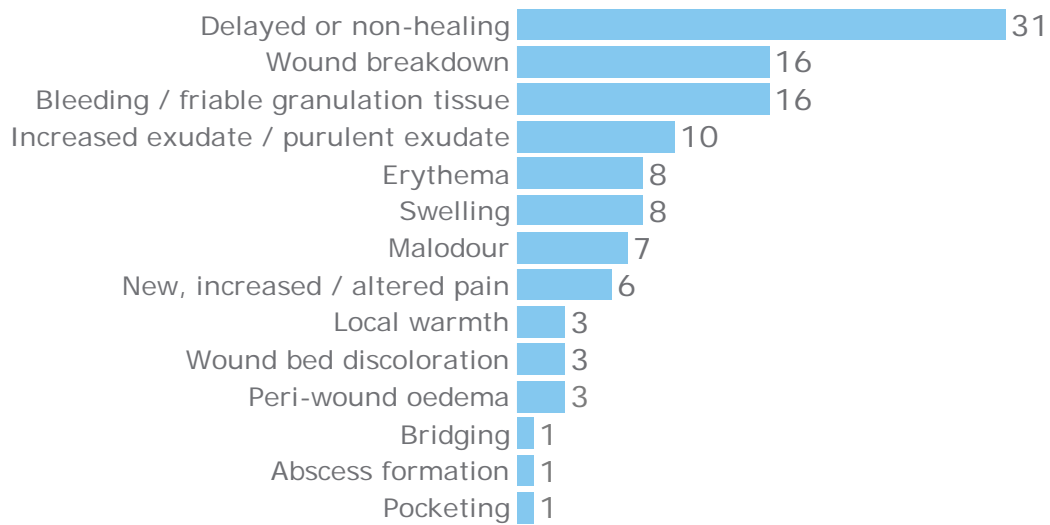


Fig 37. Signs of infection

The most commonly observed infection sign was Delayed or non-healing which was seen in 31 wounds.

Delayed or non-healing	Wound breakdown	Bleeding / friable granulation tissue	Other
31	16	16	51

The below table shows that 9 wounds were reported infected by the clinician completing the survey:

Yes	No	Don't know
9	97	7
8.0%	85.8%	6.2%

Fig 38. Stated infection

The below chart shows reported infections against the number of signs of infection:

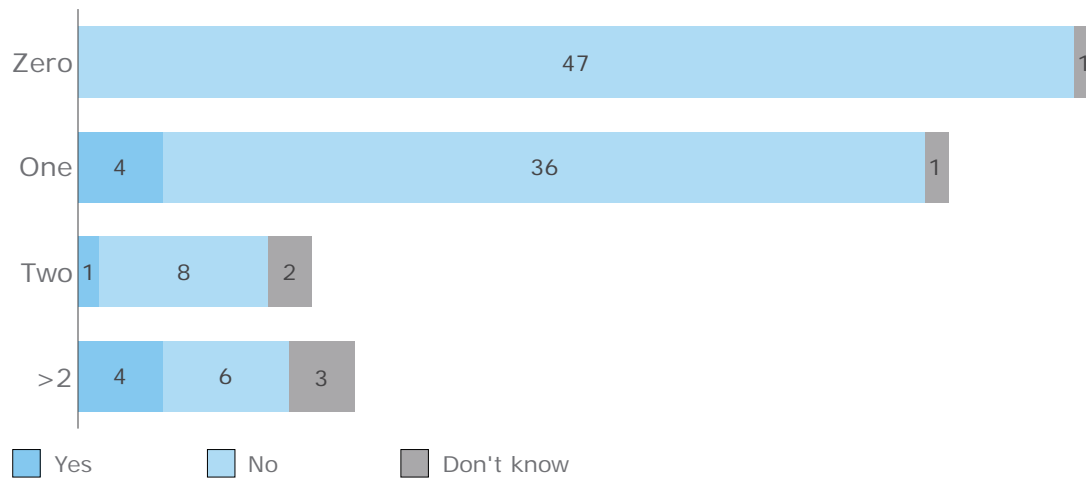


Fig 39. Stated infection by count of infection signs

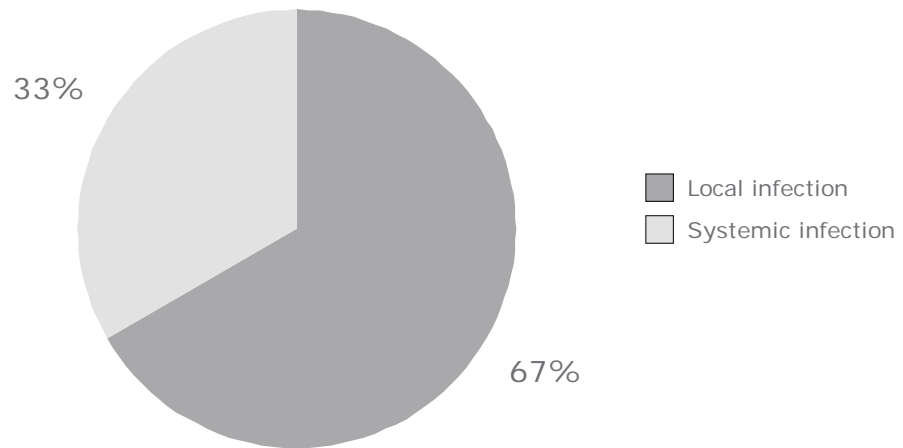


Fig 40. Infection type

The table above shows the most common infection type is Local infection (6)

Local infection	6 66.7%
Systemic infection	3 33.3%

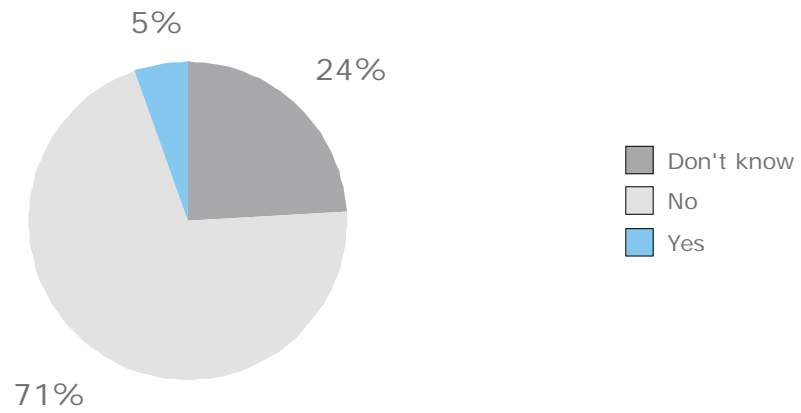


Fig 41. Infection biofilm

This analysis shows whether Biofilm was thought to be present in the wound

Don't know	24.1%
No	70.5%
Yes	5.4%

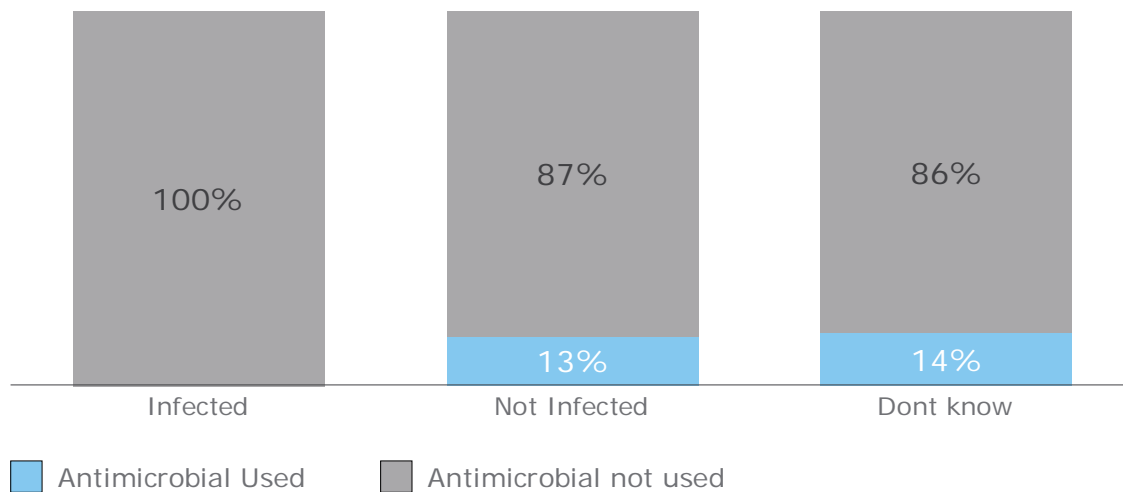


Fig 42. Antimicrobial usage by stated infection

The chart above shows the usage of antimicrobials in wounds across the clinical judgements of wound infection. This shows that 13 antimicrobial dressings were used in wounds not considered infected. Additionally 9 wounds considered infected had no antimicrobial dressings recorded in their survey forms.

	Infection	No Infection	Don't know
Yes	0 0	13 13.4%	1 14.3%
No	9 100.0%	84 86.6%	6 85.7%

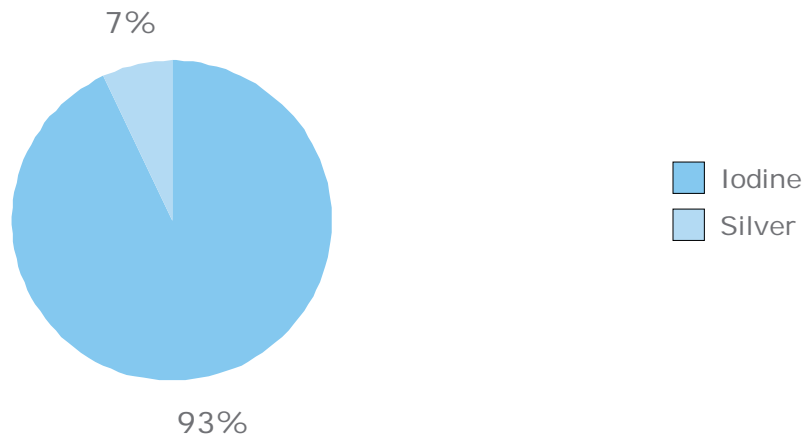


Fig 43. Antimicrobial type

The most commonly used types of antimicrobials were Iodine dressings, The most used antimicrobial dressing was Inadine, used to dress 12 wounds. The most commonly used dressings with antimicrobial properties are listed in the table below.

Iodine	Silver
13	1
92.9%	7.1%

Inadine	12
Iodosorb	1
Flaminal Forte	1

Section E:

Eco

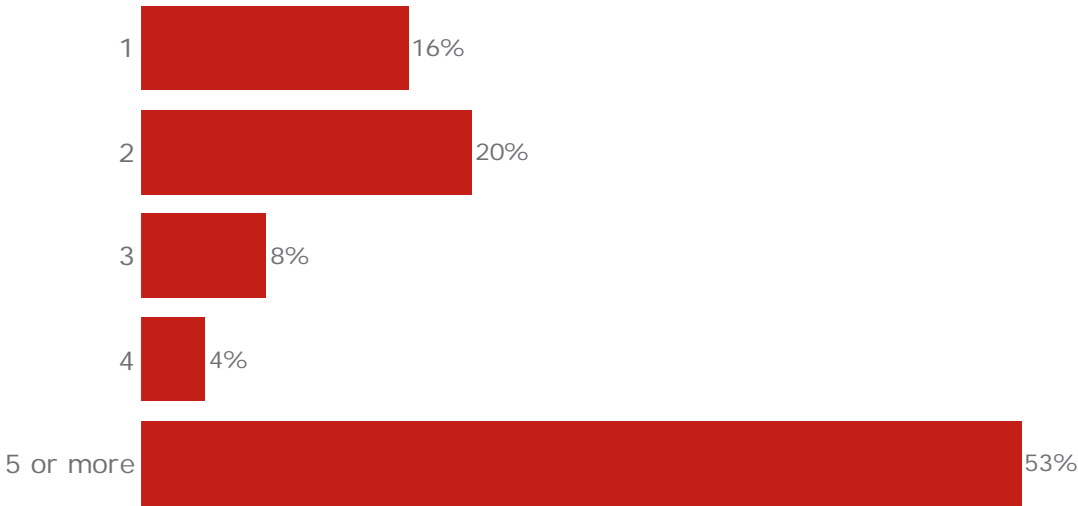


Fig 44. How many miles were travelled to the patient?

This analysis shows how many miles were travelled to the patient. 616 miles were travelled to the patients collectively, which is an average of 5 miles per patient

1	2	3	4	5 or more
17	21	8	4	56
16.0%	19.8%	7.5%	3.8%	52.8%



Fig 45. What dressing disposables did you use today?

This analysis shows the most commonly used dressing disposables.

Dressing / basic pack	98
Saline	71
Apron / other protective equipment	83
Extra gauze	21
Gloves	111
Plastic consumables e.g. gallipot	19

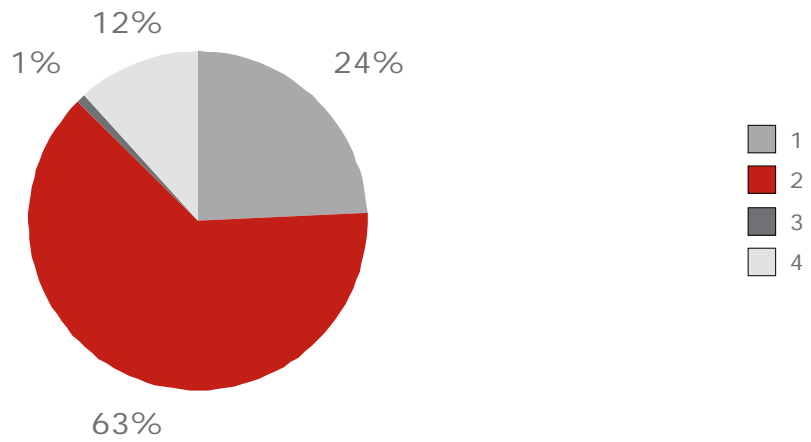


Fig 46. What dressing disposables did you use today?

This analysis shows how many pairs of gloves were used.

1	24.3%
2	63.1%
3	0.9%
4	11.7%

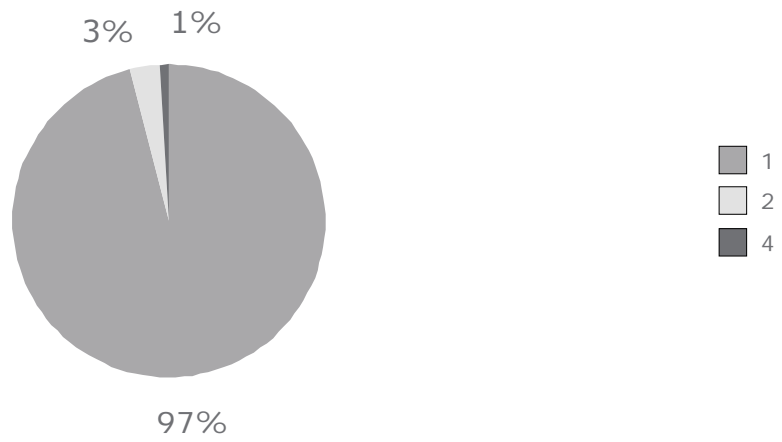


Fig 47. What dressing disposables did you use today?

This analysis shows how many dressing packs were used.

1	96.9%
2	3.1%
4	1.0%

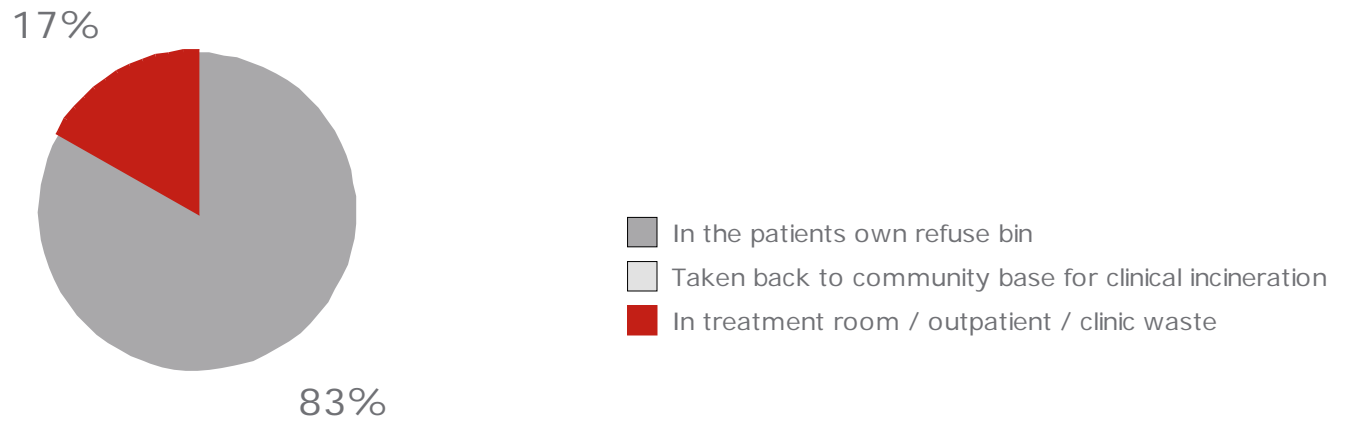


Fig 48. How did you dispose of the dressing waste today?

This analysis shows the most common ways to dispose of dressings.

In the patients own refuse bin	83.2%
Taken back to community base for clinical incineration	0.0%
In treatment room / outpatient / clinic waste	16.8%

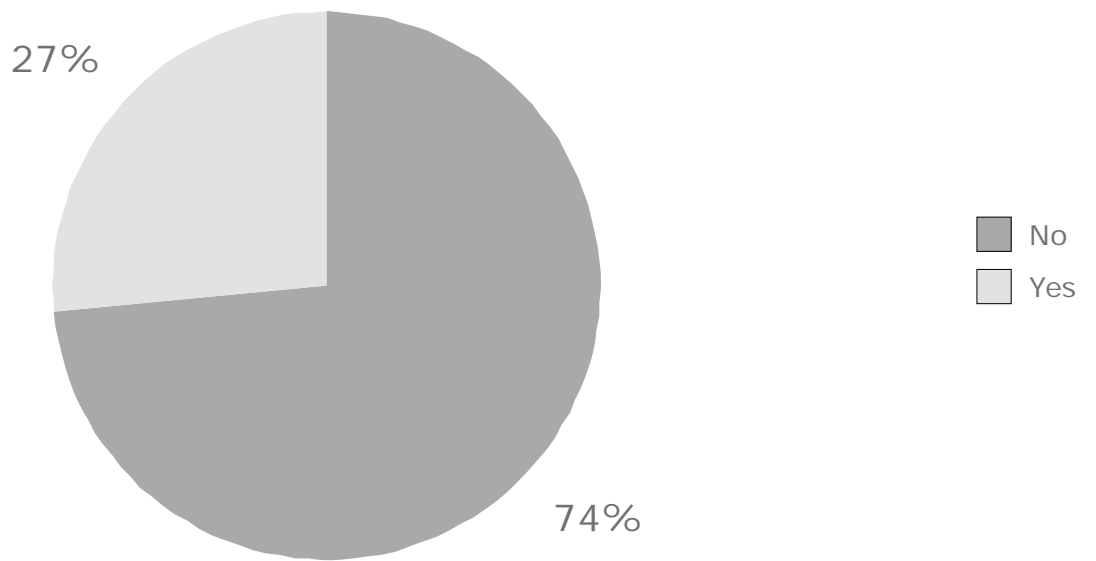


Fig 49. Would you still need to visit the patient if the dressing did not need changing?

The most common answer is No (73.5%)

No	73.5%
Yes	26.5%

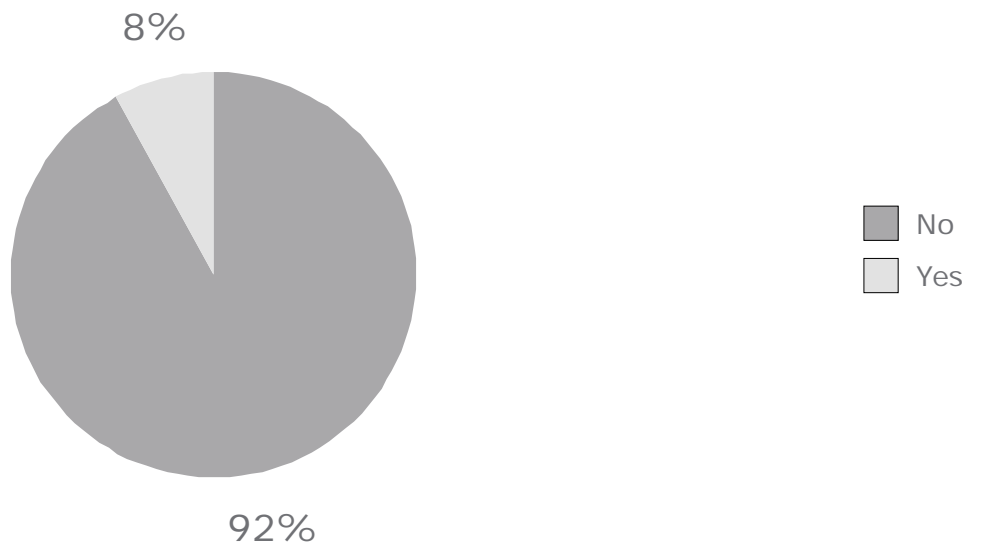


Fig 50. Would the patient cope well with self-care?

The most common answer is No (92.0%)

No	92.0%
Yes	8.0%



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