

# Optimizing and Managing Wound Care Patient Outcomes under PDGM

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▶ SHP Winning Wednesday Webinar



PRESENTED BY



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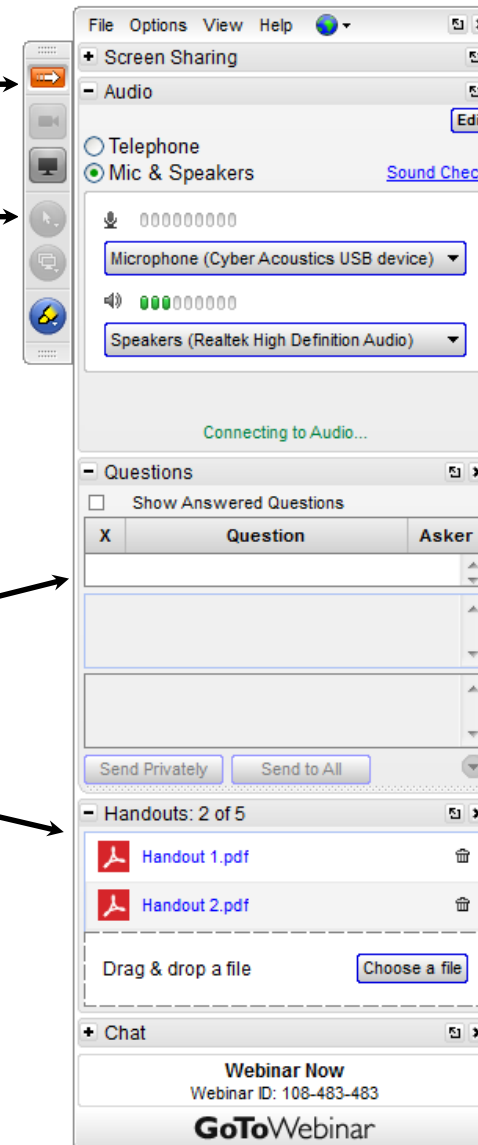
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# Objectives

- ▶ Understand how “Wounds” clinical grouping compares to the other PDGM Clinical Grouping during the first 12 months of PDGM
- ▶ Highlight the differences in visit utilization based on diagnosis and other patient attributes
- ▶ Understand how to best manage your wound care patients based on clinical picture of the patient
- ▶ Share best practices to improve patient wound outcomes and profitability

**Understand how “Wounds”  
clinical group compares to the  
other PDGM Clinical Grouping  
during the first 12 months of  
PDGM**

# SHP National Benchmarking Data

- ▶ Based on PDGM CY 2020 30-Day Periods (as of Mar 19<sup>th</sup> 2021)
- ▶ Based on SHP National Database with CY'20 Period Start Dates for Medicare Traditional patients
- ▶ Based on later of either Final Claims or OASIS
- ▶ Claims (LUPA rates and Visits) data also for Jan – Dec '20
- ▶ COVID-19 is impacting some of the trends in CY 2020

# PDGM Components - National

Clinical Group	CY 2018	CY 2020	SHP CY 2020			
	CMS	SHP	Q1	Q2	Q3	Q4
MMTA - Other	3.0%	3.1%	2.9%	3.0%	3.3%	3.2%
Neuro / Stroke Rehab	10.2%	10.7%	10.5%	10.4%	11.0%	10.8%
Wounds	11.9%	14.8%	13.8%	15.4%	15.1%	15.0%
Complex Nursing	4.4%	4.0%	3.5%	4.5%	4.1%	3.9%
Musculoskeletal Rehab	18.8%	19.0%	19.8%	17.0%	19.5%	19.3%
Behavioral Health	3.1%	2.8%	2.7%	2.8%	2.8%	2.7%
MMTA - Surgical Aftercare	3.4%	4.2%	4.3%	3.9%	4.2%	4.2%
MMTA - Cardiac / Circulatory	21.9%	17.3%	17.7%	18.2%	16.9%	16.4%
MMTA - Endocrine	7.1%	5.6%	5.2%	5.8%	5.8%	5.6%
MMTA - GI / GU	4.1%	5.0%	5.0%	5.1%	5.0%	5.0%
MMTA - Infectious Disease	3.8%	5.2%	5.3%	5.3%	5.2%	5.1%
MMTA - Respiratory	8.3%	8.4%	9.3%	8.6%	7.1%	8.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: SHP 30-Day Period Start Dates Jan '20 – Dec '20

# PDGM Components - National

- ▶ Higher proportion of “High” adjustment due with comorbidity
- ▶ Longer LOS leads to higher proportion of Community-Late Periods

Comorbidity Adjustment	SHP	Wounds
None	47.3%	27.6%
Low	38.0%	36.4%
High	14.8%	36.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source & Timing	SHP	Wounds
Community – Early	12.1%	12.8%
Institutional – Early	23.8%	11.0%
Community – Late	59.1%	71.8%
Institutional – Late	5.1%	4.4%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: SHP 30-Day Period Start Dates Jan '20 – Dec '20

# PDGM Components - National

- ▶ Wound has the second highest thresholds
- ▶ More closely matching to CMS proportions with 1/3 in each group

Wound Pt. Thresholds	
Low	0 - 41
Medium	42 - 59
High	60+

Functional Impairment	SHP	Wounds
Low	24.0%	27.3%
Med	31.9%	35.0%
High	44.1%	37.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Func Imp Measure	Average Points		
	SHP	Wounds	Dif
Ambulation	12.5	13.9	1.39
Bathing	14.0	14.5	0.49
Bed Trans	6.1	6.1	(0.03)
Lower Dressing	5.9	6.3	0.38
Upper Dressing	4.2	4.1	(0.14)
Grooming	3.3	3.2	(0.10)
Risk of Hosp	3.3	2.6	(0.62)
Toileting	1.9	2.1	0.22
Overall	51.2	52.8	1.59

Source: SHP 30-Day Period Start Dates Jan '20 – Dec '20



# Case-Mix Weight by Period

- ▶ Wounds has the highest CMW in each period (Non-LUPA)

Clinical Group	All Periods	Period 1	Period 2	Period 3	Period 4	Period 5+
MMTA - Other	1.003	1.261	0.822	0.776	0.777	0.771
Neuro / Stroke Rehab	1.176	1.449	1.000	0.956	0.956	0.969
<b>Wounds</b>	<b>1.199</b>	<b>1.499</b>	<b>1.095</b>	<b>1.063</b>	<b>1.066</b>	<b>1.078</b>
Complex Nursing	0.866	1.228	0.795	0.765	0.767	0.792
Musculoskeletal Rehab	1.149	1.375	0.900	0.835	0.842	0.848
Behavioral Health	0.854	1.139	0.737	0.697	0.695	0.679
MMTA - Surgical Aftercare	1.076	1.281	0.778	0.729	0.730	0.755
MMTA - Cardiac / Circulatory	0.958	1.278	0.820	0.770	0.767	0.762
MMTA - Endocrine	1.061	1.385	0.959	0.908	0.907	0.901
MMTA - GI / GU	1.000	1.266	0.797	0.768	0.767	0.769
MMTA - Infectious Disease	1.002	1.286	0.825	0.772	0.768	0.757
MMTA - Respiratory	1.018	1.291	0.805	0.766	0.762	0.760
<b>Overall</b>	<b>1.071</b>	<b>1.347</b>	<b>0.892</b>	<b>0.864</b>	<b>0.862</b>	<b>0.876</b>

Source: SHP 30-Day Period Start Dates Jan '20 – Dec '20 (Claims)

# LUPA Rates

- ▶ Rates based on Period Sequence
- ▶ Wounds have one of the lowest LUPA rates

Clinical Group	All Periods	Period 1	Period 2	Period 3	Period 4	Period 5 +
Behavioral Health	8.4%	9.2%	9.7%	4.7%	6.7%	8.3%
Complex Nursing	20.6%	11.4%	12.8%	21.0%	14.3%	24.2%
MMTA - Cardiac	7.5%	9.7%	9.7%	3.9%	6.7%	4.0%
MMTA - Endocrine	9.5%	9.8%	15.0%	6.7%	10.7%	6.2%
MMTA - GI / GU	9.6%	9.2%	10.5%	6.7%	8.2%	11.1%
MMTA - Infectious	9.9%	8.8%	10.4%	6.6%	8.4%	13.6%
MMTA - Other	8.5%	9.3%	10.1%	4.1%	6.6%	6.4%
MMTA - Respiratory	8.6%	9.9%	10.4%	3.9%	6.9%	3.9%
MMTA - Surg Aftcr	10.8%	10.5%	13.9%	4.2%	8.6%	4.1%
MS Rehab	8.9%	10.2%	9.8%	2.6%	7.1%	3.4%
Neuro Rehab	8.6%	10.5%	9.4%	3.6%	7.0%	5.6%
Wounds	8.1%	9.3%	12.7%	5.6%	9.1%	5.1%
<b>Overall</b>	<b>9.1%</b>	<b>9.9%</b>	<b>10.7%</b>	<b>5.0%</b>	<b>8.0%</b>	<b>7.8%</b>

Source: SHP 30-Day Period Start Dates Jan '20 – Dec '20

# LUPA Rates – By Visit Threshold

Clinical Group	Visit Threshold				
	2	3	4	5	6
MMTA - Other	7.4%	8.3%	9.5%	13.1%	
Neuro / Stroke Rehab	5.9%	10.7%	8.5%	11.1%	12.2%
Wounds	4.8%	7.6%	8.5%	10.7%	
Complex Nursing	21.1%	12.9%	10.3%		
Musculoskeletal Rehab	6.7%	9.5%	7.0%	10.3%	11.5%
Behavioral Health	7.6%	10.0%	10.0%		
MMTA - Surgical Aftercare	10.9%	8.7%	9.9%	12.1%	
MMTA - Cardiac / Circulatory	5.5%	9.1%	9.4%	12.2%	
MMTA - Endocrine	5.3%	10.0%	9.2%	12.2%	
MMTA - GI / GU	9.8%	8.3%	10.1%		
MMTA - Infectious Disease	10.6%	8.8%	10.5%		
MMTA - Respiratory	6.8%	8.5%	10.5%	12.8%	
<b>Overall</b>	<b>8.1%</b>	<b>8.6%</b>	<b>9.6%</b>	<b>11.1%</b>	<b>11.6%</b>
Percent of HIPPS Codes	21.8%	29.6%	31.7%	14.6%	2.3%
Percent of LUPA Period Count	37.5%	21.3%	14.9%	20.0%	6.3%
Percent of Wound Period Count	3.2%	62.7%	8.1%	26.0%	0.0%

Source: SHP 30-Day Period Start Dates Jan '20 – Dec '20

**Highlight the differences in visit utilization based on diagnosis and other patient attributes**

# Visit Utilization

## ► Breakout by Discipline and Clinical Group (Non-LUPA)

Clinical Group	Nursing	PT	OT	ST	MSW	HHA	Total
MMTA - Other	3.44	3.40	1.02	0.19	0.09	0.40	8.54
Neuro / Stroke Rehabilitation	2.64	4.14	1.72	0.89	0.11	0.57	10.06
Wounds - Post-Op Wound Aftercare	7.60	1.46	0.53	0.07	0.05	0.48	10.18
Complex Nursing Interventions	4.25	0.93	0.33	0.10	0.04	0.88	6.52
Musculoskeletal Rehabilitation	2.49	5.25	1.40	0.09	0.06	0.44	9.73
Behavioral Health	3.11	2.52	0.89	0.39	0.12	0.33	7.36
MMTA - Surgical Aftercare	5.16	2.80	0.90	0.15	0.07	0.30	9.39
MMTA - Cardiac / Circulatory	4.10	2.71	0.88	0.13	0.08	0.45	8.35
MMTA - Endocrine	6.38	2.44	0.76	0.13	0.09	0.46	10.26
MMTA - GI / GU	4.28	2.71	0.95	0.14	0.09	0.53	8.70
MMTA - Infectious Disease	4.36	2.44	0.78	0.13	0.09	0.49	8.29
MMTA - Respiratory	4.15	2.96	1.04	0.20	0.09	0.42	8.87
<b>Overall</b>	<b>4.33</b>	<b>3.11</b>	<b>1.01</b>	<b>0.21</b>	<b>0.08</b>	<b>0.47</b>	<b>9.20</b>

Source: SHP 30-Day Period Start Dates Jan '20 – Dec '20 (Claims)

# Visit Utilization

## ► Breakout by Period Sequence (Non-LUPA)

Clinical Group	Period 1	Period 2	Period 3	Period 4	Period 5 +
MMTA - Other	10.76	6.60	7.40	6.42	6.80
Neuro / Stroke Rehabilitation	13.05	7.79	8.64	7.20	7.98
Wounds - Post-Op Wound Aftercare	12.23	9.05	9.52	8.91	9.63
Complex Nursing Interventions	9.71	6.49	6.44	5.65	5.65
Musculoskeletal Rehabilitation	11.76	7.03	8.16	6.72	7.52
Behavioral Health	10.28	6.10	6.45	5.54	5.39
MMTA - Surgical Aftercare	11.02	6.55	7.87	6.92	8.22
MMTA - Cardiac / Circulatory	11.58	6.89	7.04	6.08	6.30
MMTA - Endocrine	11.59	7.85	8.24	7.68	11.84
MMTA - GI / GU	11.00	6.89	7.29	6.50	6.59
MMTA - Infectious Disease	10.41	6.87	7.13	6.45	6.39
MMTA - Respiratory	11.31	6.88	7.29	6.27	6.50
<b>Overall</b>	<b>11.62</b>	<b>7.28</b>	<b>7.98</b>	<b>6.98</b>	<b>7.79</b>

Source: SHP 30-Day Period Start Dates Jan '20 – Dec '20 (Claims)

# Top 10 Wound Care Diagnoses

- ▶ Match up to difference Primary Diagnosis Categories, including Endocrine (DM), Circulatory: Other, Factors Influencing Status, Skin: Pressure Ulcers, Infection: Other, Injury/Poisoning

ICD Code	ICD Description	Periods Count
<b>E11.621</b>	Type 2 diabetes mellitus with foot ulcer	88,890
<b>I87.2</b>	Venous insufficiency (chronic) (peripheral)	81,668
<b>Z48.00</b>	Encounter for change or removal of nonsurg wound dressing	67,317
<b>Z48.01</b>	Encounter for change or removal of surgical wound dressing	44,041
<b>L89.154</b>	Pressure ulcer of sacral region, stage 4	32,880
<b>L03.115</b>	Cellulitis of right lower limb	32,100
<b>L89.152</b>	Pressure ulcer of sacral region, stage 2	30,732
<b>L89.312</b>	Pressure ulcer of right buttock, stage 2	28,566
<b>L03.116</b>	Cellulitis of left lower limb	27,668
<b>L89.322</b>	Pressure ulcer of left buttock, stage 2	21,826
<b>Top 10 Total</b>		<b>455,688</b>

Top 10 % of Total 46.0%  
 Total 30-Day Periods 990,055  
 Count of Unique ICD-10 codes 1,669

Source: SHP 30-Day Period Start Dates Jan '20 – Dec '20



# Wound Care Diagnoses Groups

## ► Top Primary Diagnosis Category Visit Breakouts (Non-LUPA)

ICD Code	ICD Description	Claims	SN Avg	PT Avg	OT Avg	ST Avg	MSW Avg	HHA Avg	Total Avg
<b>Endocrine (DM)</b>									
E11.621	Type 2 diabetes mellitus with foot ulcer	70,238	8.01	1.00	0.35	0.03	0.05	0.34	9.77
E11.622	Type 2 diabetes mellitus with other skin ulcer	11,481	8.11	0.99	0.35	0.04	0.05	0.37	9.90
<b>Subtotal</b>	<b>Endocrine (DM)</b>	<b>81,719</b>	<b>8.02</b>	<b>0.99</b>	<b>0.35</b>	<b>0.03</b>	<b>0.05</b>	<b>0.34</b>	<b>9.79</b>
<b>Circulatory: Other</b>									
I87.2	Venous insufficiency (chronic) (peripheral)	66,667	7.81	1.16	0.41	0.03	0.05	0.41	9.88
<b>Subtotal</b>	<b>Circulatory: Other</b>	<b>66,668</b>	<b>7.81</b>	<b>1.16</b>	<b>0.41</b>	<b>0.03</b>	<b>0.05</b>	<b>0.41</b>	<b>9.88</b>
<b>Factors Influencing Status</b>									
Z48.00	Encounter for change or removal of nonsurg wound dressing	52,722	7.97	1.16	0.41	0.04	0.05	0.45	10.09
Z48.01	Encounter for change or removal of surgical wound dressing	33,777	7.16	2.09	0.61	0.06	0.05	0.26	10.22
<b>Subtotal</b>	<b>Factors Influencing Status</b>	<b>86,499</b>	<b>7.66</b>	<b>1.52</b>	<b>0.49</b>	<b>0.05</b>	<b>0.05</b>	<b>0.37</b>	<b>10.14</b>

Source: SHP 30-Day Period Start Dates Jan '20 – Dec '20 (Claims)



# Wound Care Diagnoses Groups

## ► Top Primary Diagnosis Category Visit Breakouts (Non-LUPA)

ICD Code	ICD Description	Claims	SN Avg	PT Avg	OT Avg	ST Avg	MSW Avg	HHA Avg	Total Avg
<b>Pressure Ulcer - Stage 4</b>									
L89.154	Pressure ulcer of sacral region, stage 4	26,361	9.00	0.97	0.49	0.08	0.05	1.04	11.62
L89.314	Pressure ulcer of right buttock, stage 4	6,927	9.22	0.46	0.26	0.03	0.04	1.07	11.08
L89.324	Pressure ulcer of left buttock, stage 4	6,561	9.10	0.52	0.27	0.04	0.05	1.03	11.02
<b>Subtotal</b>		<b>39,849</b>	<b>9.05</b>	<b>0.81</b>	<b>0.41</b>	<b>0.06</b>	<b>0.05</b>	<b>1.04</b>	<b>11.43</b>
<b>Pressure Ulcer - Stage 3</b>									
<b>L89.153</b>	Pressure ulcer of sacral region, stage 3	16,029	7.68	1.46	0.67	0.12	0.07	0.84	10.84
<b>L89.313</b>	Pressure ulcer of right buttock, stage 3	6,655	7.72	1.23	0.55	0.07	0.07	0.81	10.44
<b>L89.893</b>	Pressure ulcer of other site, stage 3	6,478	7.82	1.02	0.39	0.05	0.05	0.58	9.91
<b>L89.323</b>	Pressure ulcer of left buttock, stage 3	5,657	7.76	1.19	0.49	0.08	0.05	0.67	10.25
<b>L89.623</b>	Pressure ulcer of left heel, stage 3	4,907	7.84	1.35	0.52	0.06	0.05	0.62	10.43
<b>L89.613</b>	Pressure ulcer of right heel, stage 3	4,360	7.96	1.53	0.60	0.09	0.05	0.73	10.96
<b>Subtotal</b>		<b>44,086</b>	<b>7.76</b>	<b>1.32</b>	<b>0.57</b>	<b>0.09</b>	<b>0.06</b>	<b>0.74</b>	<b>10.53</b>
<b>Pressure Ulcer - Stage 2</b>									
<b>L89.152</b>	Pressure ulcer of sacral region, stage 2	23,986	6.21	2.00	0.84	0.18	0.08	0.72	10.03
<b>L89.312</b>	Pressure ulcer of right buttock, stage 2	22,837	6.28	1.90	0.74	0.11	0.06	0.74	9.83
<b>L89.322</b>	Pressure ulcer of left buttock, stage 2	17,369	6.27	1.83	0.74	0.10	0.06	0.65	9.65
<b>L89.892</b>	Pressure ulcer of other site, stage 2	9,833	6.85	1.33	0.51	0.07	0.06	0.56	9.37
<b>L89.622</b>	Pressure ulcer of left heel, stage 2	4,096	7.11	1.96	0.69	0.12	0.05	0.53	10.46
<b>L89.612</b>	Pressure ulcer of right heel, stage 2	3,979	7.14	1.77	0.69	0.13	0.05	0.58	10.36
<b>Subtotal</b>		<b>82,100</b>	<b>6.41</b>	<b>1.84</b>	<b>0.74</b>	<b>0.13</b>	<b>0.06</b>	<b>0.68</b>	<b>9.85</b>

Source: SHP 30-Day Period Start Dates Jan '20 – Dec '20 (Claims)

# Quality and Financial Metrics

## ► Medicare Traditional

Metric	SHP	Wounds
SHP Risk of Hospitalization	2.7	3.4
Average LOS	50.5	62.4
Efficiency of Functional Improvement*	0.175	0.123
30-Day Readmissions	11.8%	15.3%
60-Day Hospitalizations	13.9%	17.7%
Discharge to Community	94.0%	90.9%
Risk Adjusted Outcomes Roll-up	86.7%	81.9%
Average Revenue/ Period	\$ 1,822	\$ 2,080
Non-Routine Supplies/Period	\$ 44.74	\$ 165.91
Period Margin	27.8%	26.1%

\* EFI=(Sum of the Magnitude of Change for M1800, M1810, M1820, M1830, M1840, M1845, M1850, M1860, M1870) / (Sum of All Visits OT, PT, ST, SN, MSW, HHA)

Source: SHP PDGM Overview Report Jan '20 – Dec '20

# Wound Care Stays vs Outcomes

- ▶ As SHP risk for hospitalization predictions increase so does LOS, Visits and Hospitalizations

SHP Hosp Risk	Stays	LOS	SN Visit Avg	Tot Visit Avg	Chg in TNC Mobility	Chg in TNC Self Care	Hospitalizations
1	7,672	40.9	11.0	15.9	0.73	2.03	6.8%
2	44,754	57.3	15.0	20.9	0.71	1.97	16.0%
3	45,513	67.3	17.1	24.4	0.71	1.95	27.0%
4	30,703	73.6	19.1	27.4	0.73	1.96	38.8%
5	17,538	76.7	19.9	29.4	0.73	1.89	50.6%
6	8,985	76.6	20.6	31.2	0.71	1.81	65.1%
7	4,109	78.4	22.0	34.0	0.60	1.49	78.7%
8	1,657	74.1	22.6	34.4	0.47	1.15	90.8%
9	406	73.0	24.7	35.3	0.34	0.91	99.8%
<b>Overall</b>	<b>161,337</b>	<b>66.4</b>	<b>17.3</b>	<b>24.9</b>	<b>0.72</b>	<b>1.94</b>	<b>32.1%</b>

Source: SHP PDGM Non-LUPA Stays Started Jan '20 – Dec '20

# Wound Care Stay - Case Example

- ▶ Stay benchmark comparing All Wounds to Pressure Ulcer - Sacral Region Stage 3 (ICD-10 Code - L89.153)
- ▶ Length of Stay is higher by 5.1%
- ▶ Total Visits are higher by 18.9%

Grouping	LOS	Periods/ Stay	SN Visit Avg	PT Visit Avg	OT Visit Avg	ST Visit Avg	MSW Visit Avg	HHA Visit Avg	Total Visits Avg
All Wounds	66.4	2.82	17.3	4.6	1.7	0.2	0.2	0.9	24.9
L89.153	69.8	3.23	18.6	5.5	2.7	0.5	0.3	2.1	29.6

**Understand how to best  
manage your wound care  
patients based on clinical  
picture of the patient**

**What are providers saying about their pain points related to wound management?**

# Agency Pain Points in the Management of Wounds

- ▶ Inaccurate identification of patients' wound
- ▶ Not addressing etiology behind wound
- ▶ Challenges in co-managing wounds with others (wound clinics, hospital partners, etc)



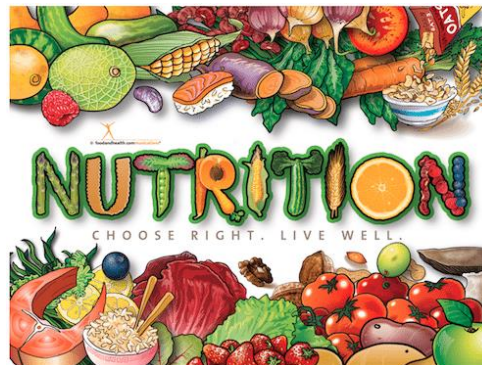
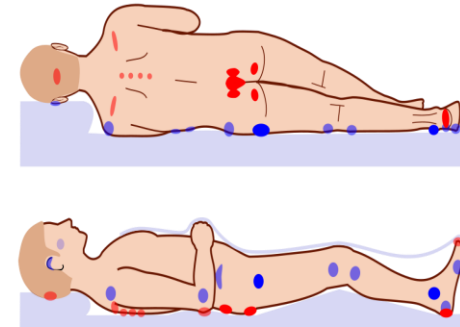
# Pain Point: Inaccurate identification of wounds

- ▶ Can affect patient wound healing
- ▶ Can affect wound patient length of stay
- ▶ Can affect supply costs
- ▶ Can affect agency profitability



# Pain Point: not addressing etiology of wound

- ▶ Addressing wound but not addressing causal factors leading to wound and/or delayed healing of wound:
  - ▶ Re-positioning
  - ▶ Addressing pressure Points
  - ▶ Nutrition Deficits ie: Lack of protein
  - ▶ Off Loading



# Options to improve wound identification and alleviating etiology:

- ▶ Education of clinicians on wound types
- ▶ Clinician Wound identification competency
- ▶ Utilization of wound care nurses to identify wounds
- ▶ Outsourcing of centralized wound care model (Corstrata)
- ▶ What is needed to reverse wound etiology
  - ▶ Addressing pressure points
  - ▶ Improving nutritional intake

# Pain Point: Co-managing Wounds

- ▶ May be co-managing wound patients with Wound Clinic
- ▶ Incentives may differ
- ▶ Regulations may differ
- ▶ Mixed messages for patient
- ▶ Divisive relationship between home health and wound clinic

# Options when Co-managing Wounds

- ▶ Clinician Visits with the patient to Wound Clinic
- ▶ Relationship of wound certified nurses with wound clinic
- ▶ Understanding new product wear time ordered by wound clinics
- ▶ Determining impact on visit utilization
- ▶ Clinic visits may improve patient feelings of isolation

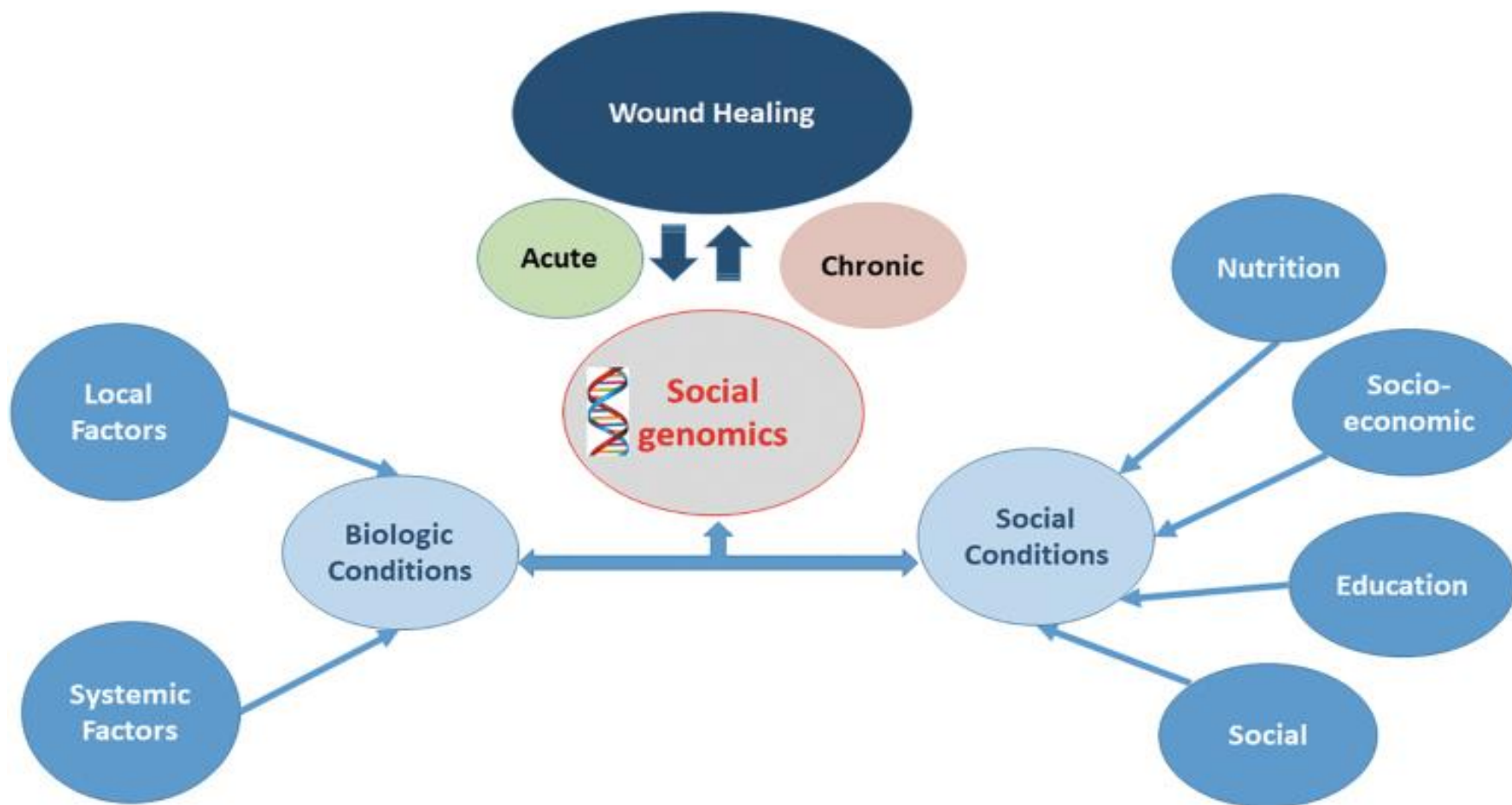
# Social Genomics-do not underestimate impact on wound healing



# Social Environment Conditions and Link to Wound Healing

- ▶ Social Isolation
  - ▶ Can impact nutritional intake
  - ▶ Can cause inflammation
  - ▶ Can impact sense of belonging
- ▶ Dementia/Depression
  - ▶ Can impact nutritional intake
  - ▶ Can impact healing
- ▶ Psychosocial Stress (relationships, money issues)
  - ▶ Can impact type of nutrition available
  - ▶ Can impact healing

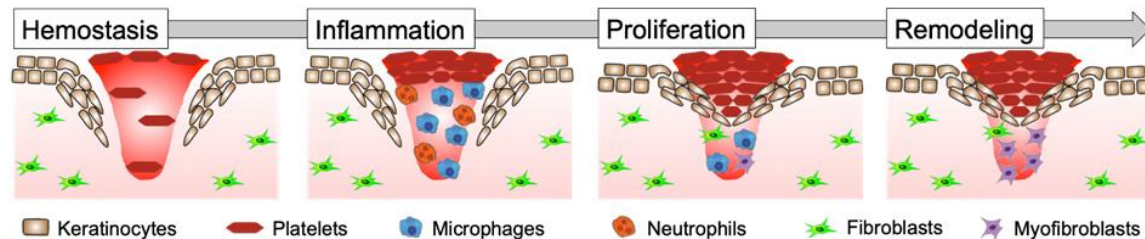




Source: The Potential Impact of Social Genomics on Wound Healing in Adv Wound Care June 2020

# Effect on Wound Healing

- ▶ Altered production of cytokines
- ▶ Change in macrophage and/or neutrophil phenotype
- ▶ Reduction of growth factors
- ▶ Increase of glucocorticoids





# Addressing Social Determinants

- ▶ Ensuring SDOH are captured and addressed as possible
  - ▶ OASIS E on horizon will assist with capturing at admission
- ▶ Addressing social isolation
  - ▶ Family or Friend Interaction
  - ▶ Virtual visits
  - ▶ Clinic visits
- ▶ Utilizing RD to assist with improving nutritional intake of protein, calories
- ▶ Addressing tobacco and alcohol consumption
- ▶ Request Social Worker order to address stressors and coping skills

# Share best practices to improve patient wound outcomes and profitability

# Negative Wound Pressure Therapy

- ▶ Draws edges of wound together
- ▶ Removes infectious material
- ▶ Reduces Edema
- ▶ Promotes perfusion
- ▶ Stretches cells so granulation tissue can form

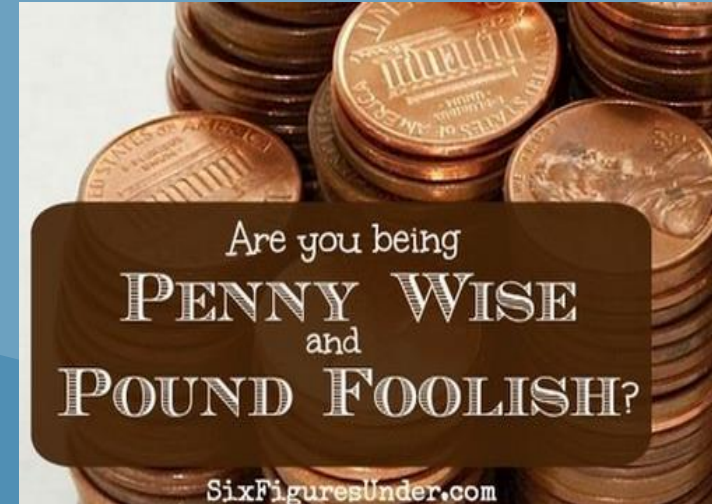


# Standard NPWT & Impact on Cost of Care

- ▶ Provider cost relates to gauze
- ▶ HME pays for pump
- ▶ Visit Utilization is higher initially due to 3x week visits
- ▶ Need reliable caregiver
- ▶ Shaves off weeks getting wound bed ready for advanced wound product
- ▶ Study performed in 2008 r/t early vs late use of NPWT

# Are you being penny wise but pound foolish?

- ▶ Advanced Wound Products with longer wear times- 7 to 14 day
  - ▶ Undisturbed healing (Molnlycke- Mepilex Border Flex Dressing)
  - ▶ Burn Dressings
- ▶ Product: Debrisoft 1-2 times: shaves off time so get wound bed to better place for granulation



# Resources to assist patient in wound management

- ▶ Pressure Relief Devices
  - ▶ Wheelchair cushions
  - ▶ Low Air Loss Mattresses
- ▶ Registered Dietician Consult
- ▶ Meals on Wheels/Food Banks
- ▶ Nutritional Supplements



# Resources to assist provider in wound population

- ▶ Automated dashboard of key indicators
- ▶ Ownership of dashboard management/response
- ▶ Wound Specialists
- ▶ Clinician education and support
- ▶ Dynamic Formulary
- ▶ Centralized oversight of wound population
  - ▶ Team that wakes up every day thinking about wound population
  - ▶ Internal or external

# Key Performance Indicators in Managing Your Wound Population

- ▶ Length of Stay >100 days
- ▶ >4 visits per week
- ▶ New Patients on Service
- ▶ Bates-Jensen Assessment Score for wounds BWATs
- ▶ Re-Hospitalizations rt wounds
- ▶ % wound identification accuracy





# Top Wound Diagnoses -Home Health

- ▶ Type 2 Diabetic Foot Ulcer
- ▶ Venous Ulcer, Lower Extremities
- ▶ Encounter for change or removal of non-surgical or surgical wound dressing
- ▶ Cellulitis of lower limbs
- ▶ Pressure Ulcers

Sources: SHP Data 2020, Corridor Data Q4 2020

# COVID Patients & Skin Manifestations

- ▶ Pressure points when patient is prone
- ▶ “Covid Toes”
- ▶ Higher risk for pressure injuries if oxygen levels low
- ▶ Patient already challenged: vent dependent, immobile, obesity
- ▶ NPIP Guidelines—for prone position pressure points

# Pressure Points for Prone Positioning

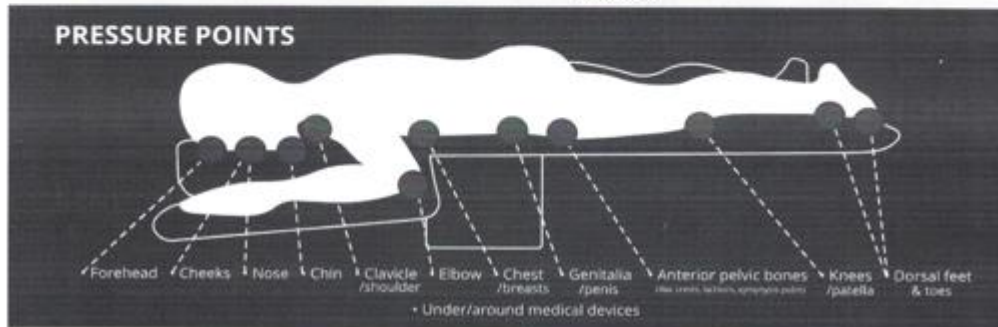


## PRESSURE INJURY PREVENTION PIP Tips for Prone Positioning

### GENERAL TIPS

- Use a **pressure redistribution surface** (for those not on a bed specifically designed for proning)
- Follow manufacturer instructions when using beds, positioning devices, prophylactic dressings and other products.
- **Positioning devices**/pillows are needed to offload pressure points.
- Involve enough trained staff to avoid friction-shear when repositioning. May reposition into swimmer position.
- Microshifts and small position changes should be performed while prone, especially in non-rotating beds.
- Assess all **pressure points**:
  - Prior to proning (anterior surfaces). Prior to returning to supine position (posterior surfaces).
  - When alternating arm position in swimming arm position, assess integrity of skin of arm/head/face.
  - Document all skin assessments and preventive measures.

### PRESSURE POINTS



# Patient Scenario: Elsie Rufo

# Elsie Rufo-73 year old

- ▶ 73 year old female with COPD, osteoarthritis and diabetes
- ▶ Husband died a year ago
- ▶ Niece lives with her, works remotely except two days/week
- ▶ Inactive-spending majority of time in recliner watching TV
- ▶ Income source: social security check
- ▶ Depression/Social Isolation
- ▶ Pain
- ▶ Stage III Sacral Pressure Injury:
  - ▶ Current measurement:  
5 x 3.5 x 1.2 cm

# Elsie Rufo-PDGM Background

- ▶ **Patient Primary Diagnosis:** Stage III Pressure Injury Sacrum
- ▶ **Admission Source/Timing:** 1<sup>st</sup> 30 days community/early; 2<sup>nd</sup> 30 days community late; 3<sup>rd</sup> 30 days community late;
- ▶ **Clinical Grouping:** Wound
- ▶ **Functional Score:** Grooming-1, Dress Upper-1, Dress Lower-2, Bathing-2, Toilet Transferring-1, Transferring-1, Ambulation-2=**Low** Functional Score
- ▶ **Comorbidities:** COPD, Type 2 DM with complications, Depression, Chronic Pain, Osteoarthritis, Atherosclerosis=0 comorbidity adjustment

# Elsie Rufo-PDGM

## Stats

**HIPPS:** 1CA11 (1<sup>st</sup> 30 days) 3CA11 (2<sup>nd</sup> 30 days) 3CA11 (3<sup>rd</sup> 30 days)

**CMW:** 1.2468 (1<sup>st</sup> 30 days) .8408 (2<sup>nd</sup> and 3<sup>rd</sup> 30 days)

**LUPA Visit Threshold:** 5 (1<sup>st</sup> 30 days)  
2 (2<sup>nd</sup> and 3<sup>rd</sup> 30 days)

**Revenue:** \$2,324 (1<sup>st</sup> 30 days) \$1,567 (2<sup>nd</sup> and 3<sup>rd</sup> 30 days)

# Addressing Elsie's Social issues

- ▶ Pain, shortness of breath, depression ➡
  - ▶ Leading to inactivity
- ▶ Decreased appetite ➡
  - ▶ Lack of protein and fresh fruits/vegetables
- ▶ Inactivity ➡
  - ▶ Pressure on bony prominences
  - ▶ Unless etiology of PU addressed, will delay healing
- ▶ Social isolation ➡
  - ▶ Not interested in eating
  - ▶ Difficulty making meals
  - ▶ Could affect wound healing
- ▶ Inconsistent caregiver oversight ➡
  - ▶ Niece works remotely
  - ▶ Niece to work 2x week
  - ▶ Health issues not being addressed timely



# Elsie's Interventions—not just about the wound

- ▶ **Address functional issues**

- ▶ Pain Management
- ▶ Address shortness of breath
- ▶ PT Order-Get patient moving
- ▶ OT-to work on equipment needed and assist with improving ability to bathing/dress

- ▶ **Assess Elsie's ability to manage her diabetes and COPD**

- ▶ **Needs nutritional evaluation**

- ▶ Meals on Wheels possibly

- ▶ **Address social genomics impact**

- ▶ Social Work Referral
- ▶ Increase socialization
- ▶ Address inconsistent caregiving

# Elsie's Wound management interventions

## ▶ Wound Management

- ▶ NPWT 3 visits per week until wound bed ready for advanced products
- ▶ Step down to advanced wound product that can be applied 2x week
- ▶ Teach niece how to troubleshoot NPWT and apply advanced wound products

## ▶ Address underlying cause of pressure

- ▶ Low air loss mattress
- ▶ Wheelchair with advanced cushion
- ▶ Repositioning off pressure points

# What's the visit plan for Elsie?

Visit Utilization-Elsie Rufo															
Stage 3 Sacral Pressure Ulcer															
Discipline	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Total Visits	
SN	3	3	3	1	1	1	1	TPV	1	TPV	1	TPV	1	16	
PT	1			2	1	1		1		1				7	
OT	1	2	2											5	
HHA															
SW	1													1	
<b>Totals</b>	6	5	5	3	2	2	1	1	1	1	1	1	TPV	1	29
		First Period			19		Second Period			7		Third Period		3	

# Elsie Rufo-Looking at the numbers

## ► Assumptions

- Using National Rates and Costs for CY 2020 per 30-day period
- Telehealth cost based on 25% of nursing visit

Revenues				Expense								Net
Period	HHRG	CMW	Sub-total	SN	PT	OT	HHA	MSW	TPV	NRS	Sub-total	Rev - Exp
1	1CA11	1.2468	\$ 2,324	\$ 1,452	\$ 502	\$ 818	\$ -	\$ 239		\$ 100	\$ 3,112	\$ (788)
2	3CA11	0.8408	\$ 1,567	\$ 581	\$ 502				\$ 36	\$ 200	\$ 1,319	\$ 248
3	3CA11	0.8408	\$ 1,567	\$ 290	\$ 167				\$ 73	\$ 200	\$ 730	\$ 837
<b>Total</b>			<b>\$ 5,459</b>	<b>\$ 2,324</b>	<b>\$ 1,171</b>	<b>\$ 818</b>	<b>\$ -</b>	<b>\$ 239</b>	<b>\$ 109</b>	<b>\$ 500</b>	<b>\$ 5,161</b>	<b>\$ 297</b>

Net Margin 5.4%

# Discharge Planning for Elsie

- ▶ Starts at admission
- ▶ Discuss ways to continue with increased socialization ie: church friends have schedule of visiting
- ▶ Talk through pressure points and need for re-positioning
- ▶ Discuss how to continue buying right foods to have on hand
- ▶ Continue with meals on wheels
- ▶ Discuss how to get Elsie to physician more routinely
- ▶ Plan for Elsie moving using techniques learned from PT visits



# What if there is not a consistent caregiver for Elsie?

- ▶ Should Elsie be cared for at home?
- ▶ Will NPWT be safe to utilize at home?
- ▶ SN would need to come at least 2x week to perform wound care with advanced wound product
- ▶ HHA would be recommended first 30 days to work with OT as Elsie works on self-care
- ▶ Would continue with in home SN Visits vs use of telephonic visits

# Alternative Visit Utilization for Elsie

- ▶ SN visits would increase to at least 20 over 90 day period
- ▶ Visits in first 30 days would increase due to addition of HHA visits
- ▶ Total visits over 90 day period would increase to at least 40
- ▶ Overall impact to margin would be loss over 90 day period

# Summary of Best Practice Tips for Wound Patients

- ▶ Ensure wounds are identified accurately
- ▶ Address etiology of the wound
- ▶ Don't underestimate impact of social determinants of health on healing
- ▶ Who owns wound patient population oversight?
- ▶ Wound dashboard with key performance indicators
- ▶ Assign ownership to oversight of dashboard daily
- ▶ Address outliers from dashboard



# References

- ▶ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7155927/>
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- ▶ <http://online.fliphtml5.com/zxoes/mtyv/#p=12>
- ▶ Factors Affecting Wound Healing in Individuals With Pressure Ulcers: A Retrospective Study by [Azize Karahan](#), [Aysel Abbasoğlu](#), [Sevcan Avcı Işık](#), [Banu Çevik](#), [Çiğdem Saltan](#), [Nalan Özhan Elbaş](#), [Ayşe Yalılı](#)
- ▶ [https://cdn.ymaws.com/npiap.com/resource/resmgr/online\\_store/posters/npia\\_p\\_pip\\_tips\\_-\\_proning\\_202.pdf](https://cdn.ymaws.com/npiap.com/resource/resmgr/online_store/posters/npia_p_pip_tips_-_proning_202.pdf)
- ▶ <https://www.o-wm.com/content/early-versus-late-initiation-negative-pressure-wound-therapy-examining-impact-home-care-leng>
- ▶ Covid Skin Manifestations presented by AMT 4/21/21

**Questions?**

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