

# TREATING PRESSURE INJURIES IN SCI PATIENTS USING TIMERS & ACTIVITY TRACKERS

F. Cristina Wu-Zimmer BSN RN CWOCN CFCN  
Spinal Cord Injury/Disorders Center  
Clement J. Zablocki VA Medical Center, Milwaukee, WI

## BACKGROUND

Pressure Injury (PI): Localized damage to skin and/or underlying soft tissue, resulting from intense and/or prolonged pressure.  
The incidence of PIs in the spinal cord injury (SCI) population is estimated at 25-66% over the lifespan, with a 33% recurrence rate.

## AIMS

- ✘ Decrease HAPIs in SCI inpatient stays.
- ✘ Enable SCI patients to recognize the difference between perceived time and true timing for off-loading practice.
- ✘ Correlate PI progress to off-loading practices by analyzing records of time and positioning throughout daily activities.

## METHODS

**Inpatient:**  
An activity tracker recording position and time/dates was utilized.



Continuous movement and position recording

Visual countdown timer for nursing team to reposition

Room	Patient	Time Until Next Turn	Position	Information
23A	No Sensor			
23B	No Sensor			
24A	No Sensor			
24B	No Sensor			
25A	No Sensor			
25B	G. S.	1:18	L [B] R	
26	No Sensor			
27A	No Sensor			
27B	No Sensor			
28	L. H.	TURN DUE 2:45 OVER	L [B] R	
29A	No Sensor			
29B	D. H.	1:55	L [B] R	Upright
31A	R. H.	Ambulating	🚶 🚶 🚶	
31B	J. M.	Turn Alerts Paused	L [B] R	No Signal

## METHODS

**Outpatient:**  
Choice of:  
✘ Vibrating clipped timer  
✘ Smartphone timer app.



## Inpatient:

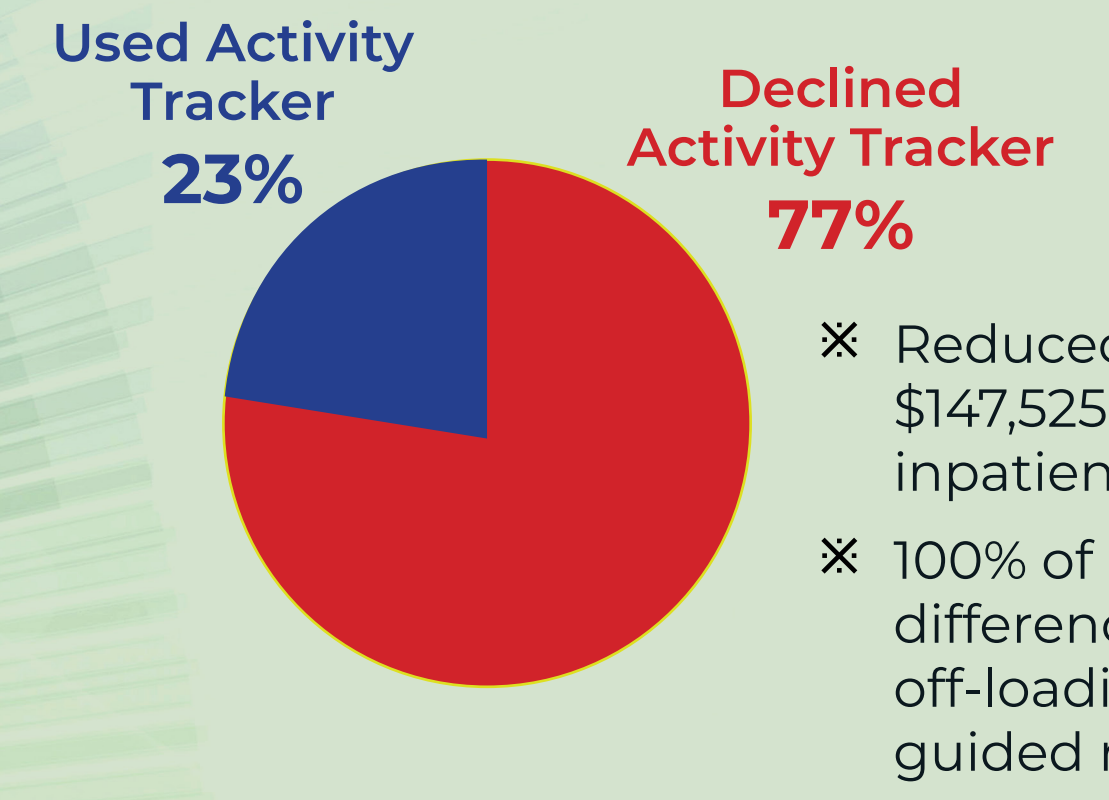
Team and Wound RN collaborated to ensure patients were repositioned Q2-hours and avoided pressure on wounded areas.

## Outpatient:

Wound RN and Physical Therapy educated patients on use of a timer set Q20min, combined with visualization of pressure mapping readings for more effective off-loading positions.

## OUTCOMES

**SCI Patient Hospital Acquired Pressure Injuries  
FY 2023-2025**



- ✘ Reduced HAPIs lead to a \$60,011-\$147,525 ROI when utilizing the inpatient activity tracker.
- ✘ 100% of patients reported a difference between perceived off-loading frequency and timer-guided repositioning.

Stage 4 PIs Inpatient Outpatient	Surgical Reconstruction		Chronic Open Wounds	
	Closure without	Post Recurrence		
✓ Practiced timed off-loading	9	25	1	0
✘ Did not practice timed off-loading	2	0	8	20

## CONCLUSION

Perception of time is flawed, leading to PI wound chronicity. Use of timing tools aids in timely repositioning compliance, PI prevention, healing, and to avoid reoccurrence.

## REFERENCES

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## ACKNOWLEDGEMENTS

Thank you to SCI Inpatient Nursing and Physical Therapy.  
**Disclaimer:** The contents do not represent the views of the U.S. Department of Veterans Affairs or the United States Government.

Wound RN completed weekly wound progress assessments and data tracking related to closure without surgical reconstruction, recurrence, post-surgical closure and chronic open wounds.