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# Consistency of pressure injury documentation across interfacility transfers

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## ABSTRACT

**Background** Hospital-acquired pressure injuries (HAPIs) are publicly reported in the USA and used to adjust Medicare payment to acute inpatient facilities. Current methods used to identify HAPIs in administrative claims rely on hospital-reported present-on-admission (POA) data instead of prior patient health information.

**Objective** To study the reliability of claims data for HAPIs and pressure injury (PI) stage by evaluating diagnostic coding agreement across interfacility transfers.

**Methods** Using the 2012 100% Medicare Provider and Analysis Review file, we identified all fee-for-service acute inpatient discharge records with a PI diagnosis among Medicare patients 65 years and older. We then identified additional facility claims (eg, acute inpatient, long-stay inpatient or skilled nursing facility) belonging to the same patient who had either (1) admission within 1 day of hospital discharge or (2) discharge within 1 day of hospital admission. Multivariable logistic regression and stratified kappa statistics were used to measure coding agreement between transferring and receiving facilities in the presence or absence of a PI diagnosis at the time of patient transfer and PI stage category (early vs advanced).

**Results** In our comparison of claims data between transferring and receiving facilities, we observed poor agreement in the presence or absence of a PI diagnosis at the time of transfer (36.3%, kappa=0.03) and poor agreement in PI stage category (74.3%, kappa=0.17). Among transfers with a POA PI reported by the receiving hospital, only 34.0% had a PI documented at the prior transferring facility.

**Conclusions** The observed discordance in PI documentation and staging between transferring and receiving facilities may indicate inaccuracy of HAPI identification in claims data. Future research should evaluate the accuracy of hospital-reported POA data and its impact on PI quality measurement.

## INTRODUCTION

Pressure injuries (also known as pressure ulcers, decubitus ulcers or bedsores) are secondary diagnoses that affect approximately 2.5 million patients each year in the USA and are associated with \$9.1–11.6 billion in annual healthcare costs.<sup>1–2</sup> Pressure injuries typically occur in older

patients with multiple comorbidities who are frequently transferred between different facilities for ongoing care. Due to the substantial clinical and financial burden of pressure injuries in the Medicare population, advanced stage (stage 3, 4 and unstageable) pressure injuries have been widely adopted as a quality measure used to adjust facility reimbursement over the past decade.<sup>3–6</sup>

In 2008, the Centers for Medicare and Medicaid Services implemented the hospital-acquired conditions (HAC) payment provision, which applied a claim-based payment penalty to discharge records with an advanced stage hospital-acquired pressure injury (HAPI).<sup>3</sup> Then in 2014, under the HAC reduction programme, HAPI rates for each facility were incorporated into a composite HAC score used to adjust overall hospital reimbursement.<sup>4</sup> The current method used by payers to identify HAPIs (and calculate facility HAPI rates) depends solely on information from the billing claim for the acute inpatient hospitalisation (ie, it does not reference patient information before or after admission).<sup>7</sup> Therefore, payers must rely on hospitals to accurately document a present-on-admission (POA) indicator for each pressure injury diagnosis listed on the billing claim. A POA designation of ‘yes’ indicates that the pressure injury predated the hospital stay and exempts the admission from financial payment penalty. A POA designation of ‘no’ indicates that the pressure injury developed during the hospital stay as a complication, making the admission eligible for reimbursement penalty.<sup>3 8 9</sup>

Previous research evaluating the accuracy of hospital-reported POA data for pressure injuries has demonstrated inconsistency between hospital-reported



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POA status in claims data and information in patient medical records.<sup>10–13</sup> A review of administrative data from New York and California found that 86%–89% of discharge records with a pressure injury diagnosis were documented by the hospital as POA.<sup>10</sup> However, large retrospective studies of patient chart data suggest that the true POA rate among admissions with a pressure injury diagnosis may be as low as 58%–62%.<sup>13 14</sup> Consequently, current pressure injury quality measures relying on hospital-reported POA data have an estimated sensitivity of 35.0% and specificity of 95.9%.<sup>12</sup>

Given the important role of HAPIs in quality measurement and provider reimbursement, it is important to measure this condition accurately. Inter-facility transfers provide an opportunity to evaluate the consistency of coding for chronic conditions and identify potential documentation inaccuracy without medical chart review. The purpose of the present study was to evaluate coding agreement among inter-facility transfers with a pressure injury diagnosis using Medicare claims data from different clinical settings (eg, acute inpatient, long-stay inpatient and skilled nursing facility). Specifically, we compared POA status reported by receiving acute inpatient hospitals with documentation of a pressure injury at the prior transferring facility. We also evaluated agreement in pressure injury stage documented by the transferring and receiving facilities.

## METHODS

### Data sources and sample

We identified all acute inpatient admissions among fee-for-service (FFS) Medicare beneficiaries 65 years and older in the 2012 100% Medicare Provider and Analysis Review (MedPAR) file. Discharge records with a pressure injury diagnosis were identified using ICD-9-CM diagnosis codes 707.00–707.09 and 707.20–707.25. Using a unique patient identifier in the MedPAR Research Identifiable File, we isolated additional facility claims (eg, acute inpatient, skilled nursing facility or long-stay hospital) in the 2011 or 2012 100% MedPAR file that belonged to the same patient and met one of the following criteria: (1) facility discharge date within 1 day of original hospital admission or (2) facility admission date within 1 day of original hospital discharge.<sup>15</sup> A data set of transfer encounters was created based on pairs of adjacent facility claims.

### Measures

Transfer encounters were categorised into the following groups: (1) skilled nursing facility to acute inpatient hospital, (2) long-stay hospital to acute inpatient hospital, (3) acute inpatient hospital to acute inpatient hospital, (4) acute inpatient hospital to skilled nursing facility and (5) acute inpatient hospital to long-stay hospital. For each transfer encounter, we collected pressure injury stage at the transferring facility and pressure injury stage at the receiving facility. Among transfers where the

receiving facility was an acute inpatient hospital, we also collected hospital-reported POA status of the pressure injury. Under the 2008 HAC payment provision, POA reporting for pressure injuries is only mandatory for acute inpatient hospitals.<sup>3</sup>

For all acute inpatient hospitals we also collected data regarding facility size (bed count), teaching status and ownership from the 2012 Medicare Provider of Services (POS) file.<sup>16</sup> Geographical differences in hospital coding patterns were evaluated at the facility level for both transferring and receiving facilities by linking the facility zip code listed in the POS file to the measure of diagnostic intensity developed by Finkelstein and colleagues.<sup>17</sup> This measure assigns an adjustment factor to each hospital referral region. Regions with a higher adjustment factor, or diagnostic intensity, have been shown to have increased numbers of patient diagnoses reported in claims data.<sup>17</sup>

### Statistical analysis

Descriptive statistics for patient demographics and pressure injury documentation were compared between all discharge records with a pressure injury diagnosis and admissions that also had an associated transfer encounter. Among transfers between acute inpatient hospitals, facility characteristics for both the receiving and transferring hospital were also reported.

To evaluate agreement in the presence/absence of a pressure injury at the time of transfer, we compared POA documentation (yes/no) at the receiving hospital with the presence/absence of a pressure injury diagnosis at the prior transferring facility. Among transfers with a pressure injury documented at the receiving hospital, the binary outcome of agreement in the presence/absence of a pressure injury diagnosis was classified as ‘yes’ if pressure injury documentation across the transfer encounter satisfied one of the following criteria: (1) a POA pressure injury was documented at the receiving hospital and a pressure injury diagnosis was documented at the transferring facility, or (2) a non-POA pressure injury was documented at the receiving hospital and no pressure injury diagnosis was documented at the transferring facility.<sup>18</sup> Otherwise, agreement in the presence/absence of a pressure injury was classified as ‘no’.<sup>18</sup>

For agreement in pressure injury stage across transfer encounters, we categorised stage into early (stage 1, 2 or missing) or advanced (stage 3, 4 or unstageable). Binary agreement in stage category was classified as ‘yes’ if the stage category (early or advanced) reported at the transferring facility matched the stage category documented at the receiving facility.<sup>18</sup> If the stage categories at the transferring and receiving facilities did not match, then stage agreement was classified as ‘no’.<sup>18</sup>

We used generalised estimating equation with a logit link to model the binary outcome of agreement (yes/no) as a function of patient age, race/ethnicity, gender and transfer category, accounting for clustering of transfer

encounters within specific transferring and receiving facility combinations.<sup>18</sup> For agreement in the presence/absence of a pressure injury diagnosis, we were only able to evaluate transfers to an acute inpatient facility (eg, skilled nursing facility to acute, acute to acute and long-stay to acute) because POA coding in claims data is only required among acute inpatient facilities under the 2008 HAC payment provision. For agreement in pressure injury stage category, we included all five types of transfer encounters. Average marginal effects were used to estimate the adjusted percentage of agreement for each binary agreement outcome (presence/absence of pressure injury and pressure injury stage category) by transfer category, controlling for patient age, race/ethnicity and gender.

We also report unstratified and stratified (adjusting for patient age, race/ethnicity and gender) Cohen's kappa coefficients as another measure of agreement.<sup>19</sup> Cohen's kappa coefficient for inter-rater agreement can be interpreted as follows: values <0 indicating no agreement; 0.01–0.20 as poor; 0.21–0.40 as fair; 0.41–0.60 as moderate; 0.61–0.80 as substantial; and 0.81–1.00 as almost perfect.<sup>20</sup> The significance level for all analyses was  $p < 0.05$ , and all analyses were performed at the admission level using SAS V.9.4.

## RESULTS

In 2012 there were 175 791 acute inpatient discharge records with a pressure injury diagnosis among FFS patients 65 years and older (figure 1). There were

144 989 discharge records (82.5%) that contained a facility claim within 1 day of admission or discharge (figure 1). Transfers to ( $n=74\,772$ , 51.6%) and from ( $n=32\,619$ , 22.5%) skilled nursing facilities were the most common, followed by transfers between acute inpatient hospitals ( $n=25\,018$ , 17.3%).

Table 1 describes patient demographics, POA status and pressure injury stage according to the type of sending and receiving facility. Receiving acute inpatient hospitals reported pressure injuries to be POA less often when patients were transferred from other acute inpatient hospitals (68.2%) than from other types of facilities (94.3%). Among transfers between acute inpatient hospitals, receiving hospitals were generally larger ( $p < 0.0001$ ), with a higher proportion of non-profit ownership ( $p = 0.0003$ ) and teaching affiliation ( $p < 0.0001$ , table 2). Diagnostic coding intensity did not differ significantly between transferring and receiving hospitals ( $p = 0.7912$ , table 2).

Table 3 demonstrates the agreement in the presence or absence of a pressure injury diagnosis at the time of interfacility transfers. Agreement required one of the following conditions: (1) pressure injury diagnosis at the transferring facility and a pressure injury POA status of 'Y' documented by the receiving hospital, or (2) absence of a pressure injury diagnosis at the transferring facility and pressure injury POA status of 'N' at the receiving hospital. Overall agreement in pressure injury diagnosis at the time of transfer was low at 36.3% (stratified kappa=0.03). Transfers from the

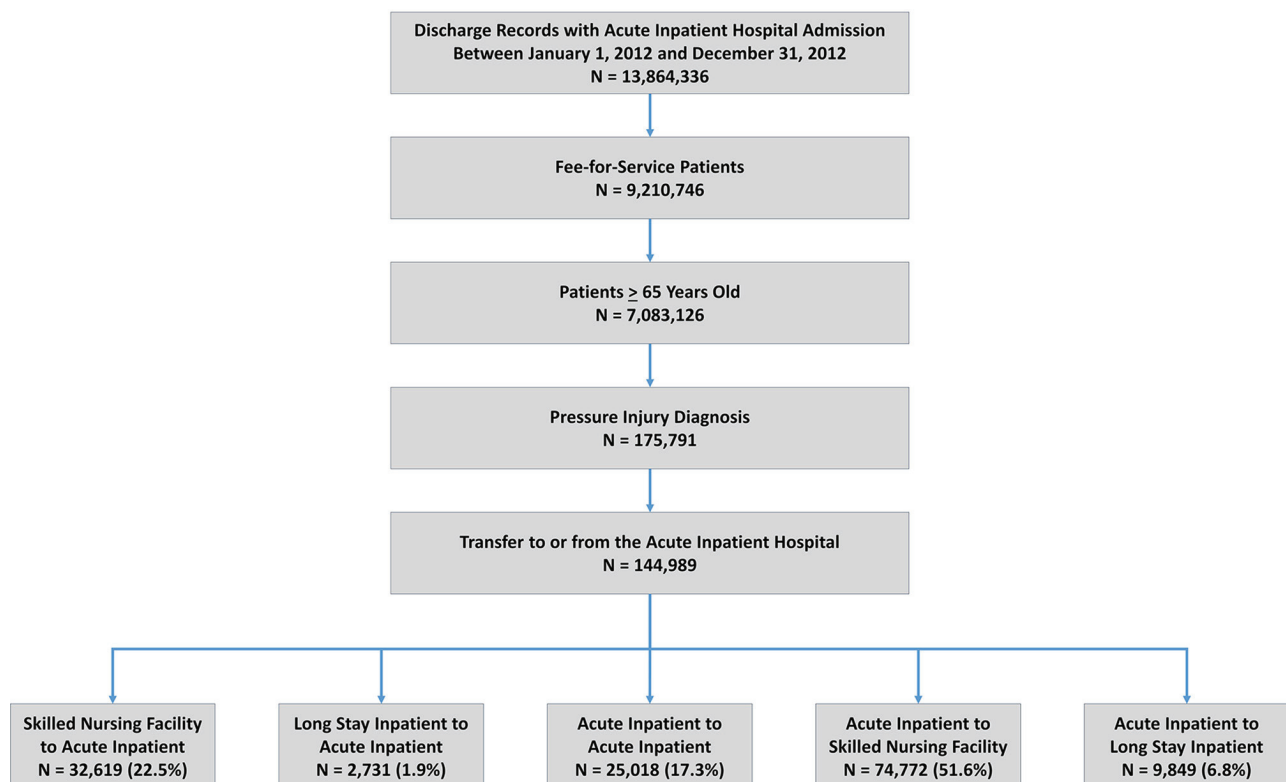


Figure 1 Patient sample.

## Original research

**Table 1** Admission characteristics

	All acute inpatient hospital discharge records with a pressure injury diagnosis n=175 791	Transfers from other facilities to acute inpatient hospitals* n=35 350	Transfers between acute inpatient hospitals n=25 018	Transfers from acute inpatient hospitals to other facilities* n=84 621
Age (mean, SD)	79.5, 9.0	79.0, 8.8	79.2, 8.8	80.0, 8.9
Gender				
Female	101 664 (57.8%)	19 652 (55.6%)	13 535 (54.1%)	49 956 (59.0%)
Race/Ethnicity				
White	133 525 (76.0%)	26 034 (73.7%)	20 273 (81.0%)	65 640 (77.6%)
Black	31 883 (18.1%)	7285 (20.6%)	3436 (13.7%)	14 627 (17.3%)
Other	10 383 (5.9%)	2031 (5.8%)	1309 (5.2%)	4354 (5.2%)
Pressure injury stage†				
1	25 381 (14.4%)	3765 (10.7%)	3651 (14.6%)	11 740 (13.9%)
2	57 636 (32.8%)	10 595 (30.0%)	8294 (33.2%)	28 156 (33.3%)
3	21 266 (12.1%)	5009 (14.2%)	2221 (8.9%)	10 213 (12.1%)
4	16 337 (9.3%)	4361 (12.3%)	1362 (5.4%)	7541 (8.9%)
Unstageable	8854 (5.0%)	2125 (6.0%)	1193 (4.8%)	4541 (5.4%)
Multiple reported	15 567 (8.9%)	3732 (10.6%)	1513 (6.1%)	7888 (9.3%)
Missing stage	30 750 (17.5%)	5763 (16.3%)	6784 (27.1%)	14 542 (17.2%)
Pressure injury POA status‡				
Yes	158 811 (90.3%)	33 336 (94.3%)	17 051 (68.2%)	NA
No	9267 (5.3%)	964 (2.7%)	1101 (4.4%)	
Unable to determine	1536 (0.9%)	299 (0.9%)	276 (1.1%)	
Missing	6177 (3.5%)	751 (2.1%)	6590 (26.3%)	

\*Other facilities include skilled nursing facilities and long-stay nursing facilities.

†For transfers between acute inpatient hospitals and other facilities, data represent the pressure injury stage documented by the acute inpatient hospital. For transfers between acute inpatient hospitals, data represent the pressure injury stage documented by the receiving hospital.

‡Present-on-admission (POA) reporting is only mandatory among acute inpatient hospitals. Therefore, data only reported for transfers to an acute inpatient hospital. For transfers between acute inpatient hospitals, data represent pressure injury POA status documented by the receiving acute inpatient hospital.

skilled nursing facility to the acute inpatient setting had the lowest agreement between POA reporting and prior documentation (19.5% adjusted, stratified kappa=0.01), and transfers between acute inpatient facilities were the most consistent (64.4% adjusted), but still had a poor level of agreement (stratified kappa=0.14). Among transfers with a POA pressure injury reported by the receiving hospital (n=50 387), only 34.0% (n=17 112) had a pressure injury documented at the prior transferring facility.

We also found differences in pressure injury stage documentation between transferring and receiving facilities (table 4). Classification of pressure injuries

as early (stage 1, 2 or missing) versus advanced (stage 3, 4 or unstageable) was only consistent among 74.8% of transfers (stratified kappa=0.17). Lack of agreement was greatest among transfers between the acute inpatient setting and skilled nursing facilities (kappa=0.10 for transfers from skilled nursing facilities to acute inpatient hospitals, and kappa=0.14 for transfers from acute inpatient hospitals to skilled nursing facilities; table 4). Acute inpatient hospitals with the same motivations and requirements for documenting pressure injuries had the most consistent staging across interfacility transfers (stratified kappa=0.61, table 4).

**Table 2** Facility characteristics among transfers between acute inpatient hospitals (n=25 018)

	Transferring inpatient hospital	Receiving inpatient hospital	p Value
Bed count (mean, SD)	403.3, 330.2	449.8, 347.3	<0.0001
Ownership (for profit, % total)	4343 (17.4%)	4044 (16.2%)	0.0003
Teaching status (yes, % total)	7468 (29.9%)	8761 (35.0%)	<0.0001
Diagnostic intensity (mean, SD)*	0.98, 0.5	0.98, 0.5	0.7912

\*Diagnostic intensity refers to the adjustment factor developed by Finkelstein and colleagues for each hospital referral region. Regions with a higher adjustment factor have been shown to have increased numbers of patient diagnoses reported in claims data. Values range from 0.867 to 1.107, with a mean of 1.00 and an SD of 0.044.<sup>17</sup>

**Table 3** Agreement in the presence or absence of a pressure injury diagnosis at the time of interfacility transfer

Transferring facility*	Receiving facility†	Total number of transfers‡	Unadjusted % agreement in PI diagnosis§	Adjusted % agreement in PI diagnosis¶	Cohen's kappa coefficient**
Skilled nursing facility	Acute inpatient hospital	32 619	19.6	19.5	0.01
Long-stay inpatient hospital	Acute inpatient hospital	2731	45.7	46.0	0.06
Acute inpatient hospital	Acute inpatient hospital	25 018	64.1	64.4	0.14
Total		60 368	36.3	36.3	0.03

\*Transferring facility refers to the facility type prior to patient transfer.

†Receiving facility refers to the facility type after patient transfer. Documentation of pressure injury POA status is only required among acute care inpatient hospitals.

‡Data represent the total number of transfers for each transfer category.

§Agreement in PI diagnosis required one of the following: (1) POA PI documented by receiving hospital and PI diagnosis at transferring facility, or (2) non-POA PI documented by receiving hospital and no PI diagnosis at transferring facility.

¶Multivariable logistic regression with GEE was used to model binary agreement in PI diagnosis as a function of patient age, race, gender and transfer type (online supplementary table S1). Adjusted percentage agreement in PI diagnosis represents the mean predicted probability of agreement for each transfer type times 100%.<sup>18</sup>

\*\*Data represent an overall stratified Cohen's kappa coefficient for inter-rater agreement in PI diagnosis, adjusting for patient age, gender and race.<sup>19</sup>

Strata were weighted by sample size and the age variable was categorised into patients 65–74 years, patients 75–84 years, and patients 85 years and older. Values of Cohen's kappa coefficient can be interpreted as follows: <0 indicates no agreement; 0.01–0.20 as poor; 0.21–0.40 as fair; 0.41–0.60 as moderate; 0.61–0.80 as substantial; 0.81–1.00 as almost perfect.<sup>20</sup> Unstratified kappa coefficients did not differ from stratified kappa coefficients and were all statistically significant ( $p < 0.0001$ ).

GEE, generalised estimation equation; PI, pressure injury; POA, present-on-admission.

## DISCUSSION

For older medically complicated patients who receive treatment from multiple different providers over short periods of time, it is vital to ensure accuracy and consistency of patient health data across settings to optimise patient safety. Our results demonstrate poor agreement in claim documentation of pressure injury diagnosis and reported stage across interfacility transfers. This finding may indicate potential inaccuracy

when using claims data to identify pressure injuries, and raises concern regarding current methods used by payers to identify pressure injuries in claims data for provider performance evaluation and payment adjustment.

The greatest discrepancy in both pressure injury diagnosis and staging occurred among transfers between skilled nursing facilities and acute inpatient hospitals, which were also the most common type of

**Table 4** Agreement in pressure injury stage category between transferring and receiving facilities

Transferring facility*	Receiving facility†	Total number of transfers‡	Unadjusted % agreement in PI stage category§	Adjusted % agreement in PI stage category¶	Cohen's kappa coefficient**
Skilled nursing facility	Acute inpatient hospital	32 619	66.0	66.4	0.10
Long-stay inpatient hospital	Acute inpatient hospital	2731	74.9	75.8	0.34
Acute inpatient hospital	Acute inpatient hospital	25 018	89.2	89.2	0.61
Acute inpatient hospital	Skilled nursing facility	74 772	74.6	74.3	0.14
Acute inpatient hospital	Long-stay inpatient hospital	9849	76.1	77.2	0.48
Total	Total	144 989	74.8	74.8	0.17

\*Transferring facility refers to the facility type prior to patient transfer.

†Receiving facility refers to the facility type after patient transfer.

‡Data represent the number of transfers in each transfer category.

§Agreement in PI stage category required one of the following: (1) documentation of a single stage 3, 4 or US PI at both the transferring and receiving facility or (2) documentation of a single stage 1 or 2 PI at both the transferring and receiving facility.

¶Multivariable logistic regression with GEE was used to model binary agreement in PI stage category (early vs advanced) as a function of patient age, race, gender and transfer type (online supplementary table S1table S1). Adjusted percentage agreement in PI diagnosis represents the mean predicted probability of agreement for each transfer type times 100%.<sup>18</sup>

\*\*Data represent an overall stratified Cohen's kappa coefficient for inter-rater agreement in PI advanced stage status, adjusting for patient age, gender and race.<sup>19</sup> Strata were weighted by sample size and the age variable was categorised into patients 65–74 years, patients 75–84 years, and patients 85 years and older. Values of Cohen's kappa coefficient can be interpreted as follows: <0 indicates no agreement; 0.01–0.20 as poor; 0.21–0.40 as fair; 0.41–0.60 as moderate; 0.61–0.80 as substantial; and 0.81–1.00 as almost perfect.<sup>20</sup> Unstratified kappa coefficients were as follows: skilled nursing to acute 0.10 ( $p < 0.0001$ ), long-stay to acute 0.36 ( $p < 0.0001$ ), acute to acute 0.58 ( $p < 0.0001$ ), acute to skilled nursing 0.14 ( $p < 0.0001$ ), acute to long-stay 0.49 ( $p < 0.0001$ ), total 0.19 ( $p < 0.0001$ ).

GEE, generalised estimation equation; PI, pressure injury.

interfacility transfer. These findings may be the result of different facility motivations to code pressure injuries or varying capacity to maintain properly trained staff to document pressure injuries with good inter-rater reliability. For example, nursing facilities document pressure injuries in both administrative billing claims and patient assessment data (eg, Minimum Data Set). However, POA documentation for pressure injuries and financial penalties based on claims data only apply to the acute inpatient setting under the HAC POA payment provision. These differences create unique coding behaviour in each clinical setting that may contribute to the observed discrepancy in pressure injury documentation. Alternatively, facilities with poor staffing capabilities and inadequate experience with pressure injuries may have unreliable medical record documentation leading to inaccurate billing claims. The relative contribution of each of these issues to our observed results is unable to be ascertained from claims data alone, but is important to address given the role of pressure injuries in quality measurement and payment reform.

Our results also raise considerable concern regarding the accuracy of hospital-reported POA status for pressure injuries in claims data. A previously published review of 51 842 FFS Medicare patient charts in 2006 and 2007 found that among admissions with a documented pressure injury (n=4810), 62% were POA (n=2999).<sup>14</sup> This figure represents a substantial difference from our data demonstrating that 90.3% of hospital admissions with a pressure injury diagnosis are reported by the hospital as POA in claims data. The potential inconsistency between hospital-reported POA data and information documented in patient charts calls the validity of hospital-reported POA data for pressure injuries into question and is an issue that warrants further research.

Our study has several limitations. First, while we demonstrate inconsistency, we cannot measure the relative accuracy of documentation by the transferring or receiving facility. Therefore, we are not able to comment on whether there was over-reporting or under-reporting among any type of facility, and our ability to make specific recommendations regarding improving the accuracy or reliability of claims data is limited. Second, our method of capturing transfer encounters only included transfers with a pressure injury diagnosis at an acute inpatient hospital. We did not include transfers with a pressure injury diagnosis at another facility type and no pressure injury diagnosis at the acute inpatient hospital. Including such cases would have allowed a more complete assessment of agreement and potentially further reduce our estimations of coding agreement.

Third, if implementation of the 2008 HAC payment provision incentivised acute inpatient hospitals to only report pressure injuries that were POA, then our results may not be an accurate representation of

pressure injury epidemiology in the acute inpatient setting. Previous studies have evaluated the impact of 2008 HAC payment provision on the incidence of HAPIs using hospital-reported POA data in administrative claims.<sup>21 22</sup> However, the impact of the 2008 HAC payment provision on the accuracy of the POA indicator and coding sensitivity of pressure injuries in administrative claims is not well understood. Subsequently, research evaluating the 2008 HAC payment provision for pressure injuries has generated mixed results.<sup>21–24</sup>

Other limitations include our time window allowance of 1 day within hospital admission or discharge for each transfer encounter. If a new pressure injury occurred during that time period (eg, during transport on an inadequate pressure support surface or in the emergency room between transfers), then inconsistent documentation would be valid. We also did not evaluate documentation across more than one interfacility transfer for the same patient. For example, if a patient was hospitalised in the acute setting, then discharged to a SNF, and then rehospitalised, we did not evaluate concordance in documentation between the two hospital facilities. Therefore, the implications of our results are only sufficient to demonstrate inconsistencies in immediately adjacent facility claims, and not inconsistencies between provider and facility claims or documentation inconsistencies over longer periods of time. Also, the lack of observed difference between adjusted and unadjusted agreement percentages may be because we did not have access to other variables that drive differences in coding practice and agreement (eg, provider-level factors for all facility types in our analysis). Finally, our administrative data used ICD-9 diagnosis codes that do not allow 'deep tissue injury' classification for pressure injuries.

Despite the above limitations, the methods and results of our study improve on the existing literature in several ways. Inaccurate coding of hospital-reported POA data can lead to poor HAPI identification in administrative claims that may impact research results using POA data to study the pressure injury population.<sup>21 22</sup> Furthermore, the current method used by payers to identify HAPIs and evaluate provider performance for pressure injuries relies on accurate hospital-reported POA data in billing claims.<sup>3 4 7 25</sup> Thus, HAPI measurement error may also result in inappropriate facility reimbursement adjustment under the 2008 HAC payment provision and 2014 hospital-acquired conditions reduction programme.<sup>4 25</sup>

Evaluating the consistency of claims data across clinical settings is an easily reproducible approach for payers to study coding patterns, motivations and inconsistencies that may be useful to understand in the context of value-based payment reform. Our finding of greater coding discrepancy among transfers between SNFs and acute inpatient hospitals raises important questions regarding the role of staffing/coding

capacity versus different coding motivations between facility types. For example, for pressure injury transfer encounters between acute inpatient hospitals, 68.2% were reported as POA and 26.3% were missing POA status documentation. Alternatively, among transfers from other facilities to the acute inpatient setting with a pressure injury diagnosis, 94.3% were reported as POA and only, 2.1% were missing POA documentation. The corresponding relationship between pressure injury admissions reported as POA and admissions with a missing POA status, deserves further attention.

In conclusion, this study demonstrates inconsistent pressure injury documentation across adjacent facility claims that challenges the accuracy of pressure injury diagnosis and hospital-reported POA status in administrative data. Given the role of administrative claims and hospital-reported POA data in evaluating hospital quality and adjusting reimbursement under the 2008 HAC payment provision, future research evaluating the accuracy of hospital-reported POA data and its impact on pressure injury quality measurement should be performed. In addition, efforts to review the quality of claims data across clinical settings will inform future quality measure development and payment reform.

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## Consistency of pressure injury documentation across interfacility transfers

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