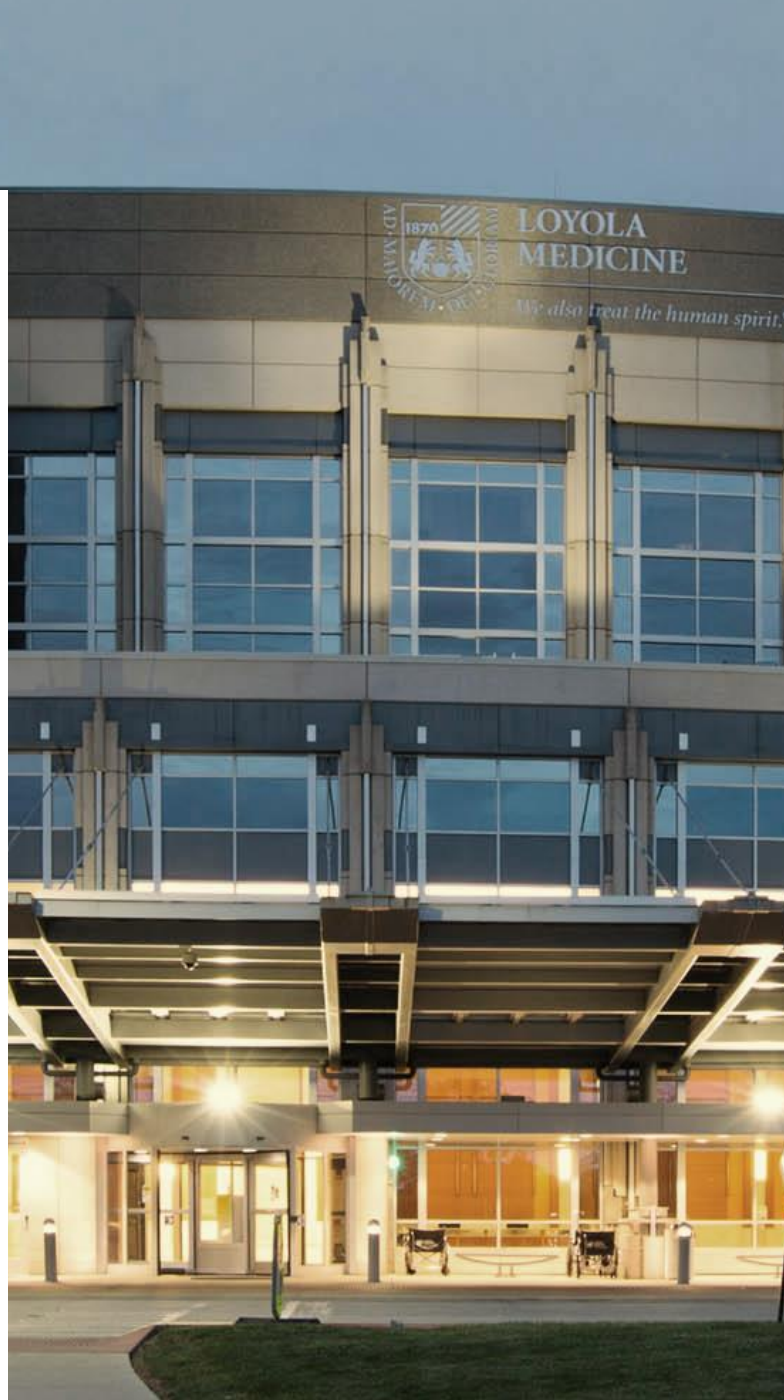


FALL RISK AND PREVENTION

2E Neurosciences
Transition to Practice



LOYOLA
MEDICINE

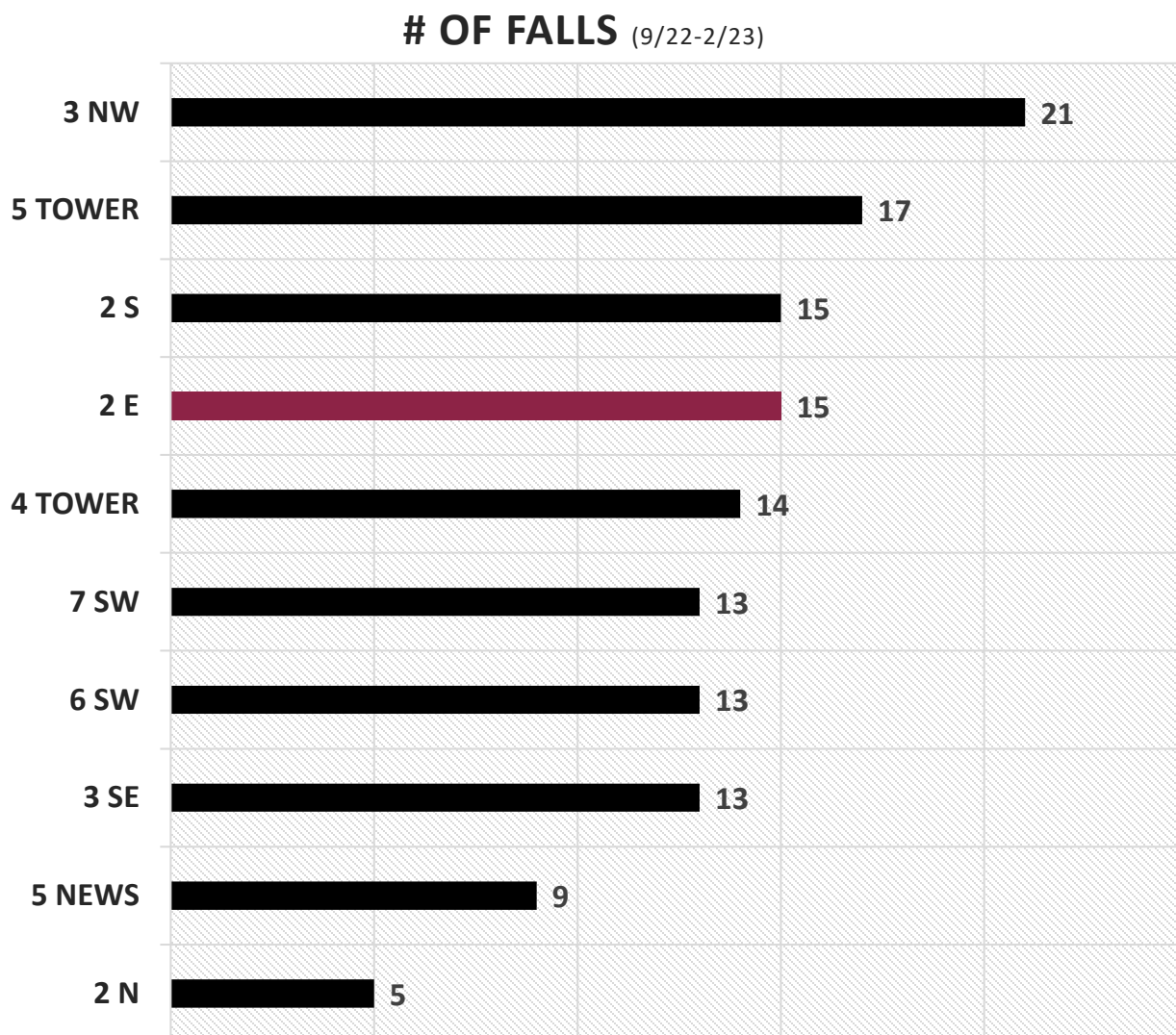


FALL PREVALENCE

You might be thinking...

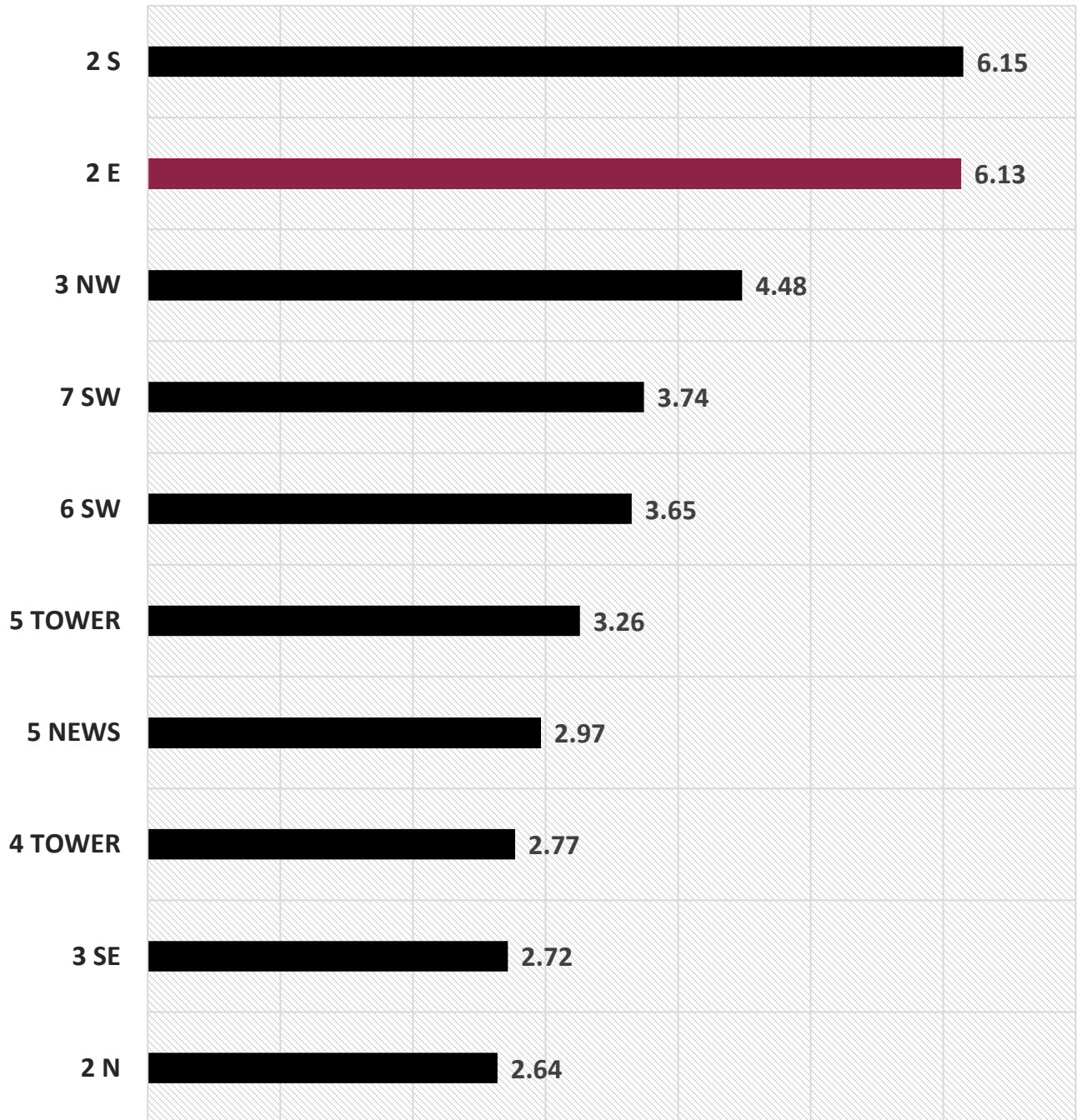
*“Are falls really that big of an issue?
I haven’t heard of many falls recently.”*

The answer is **yes**. Over the last six months there have been **fifteen** falls on 2E, more than most med-surg units.



This does not even consider the volume of patients a unit sees. Since 2E has less beds than many of these units, when we adjust for this, our fall rate is at the top of the list.

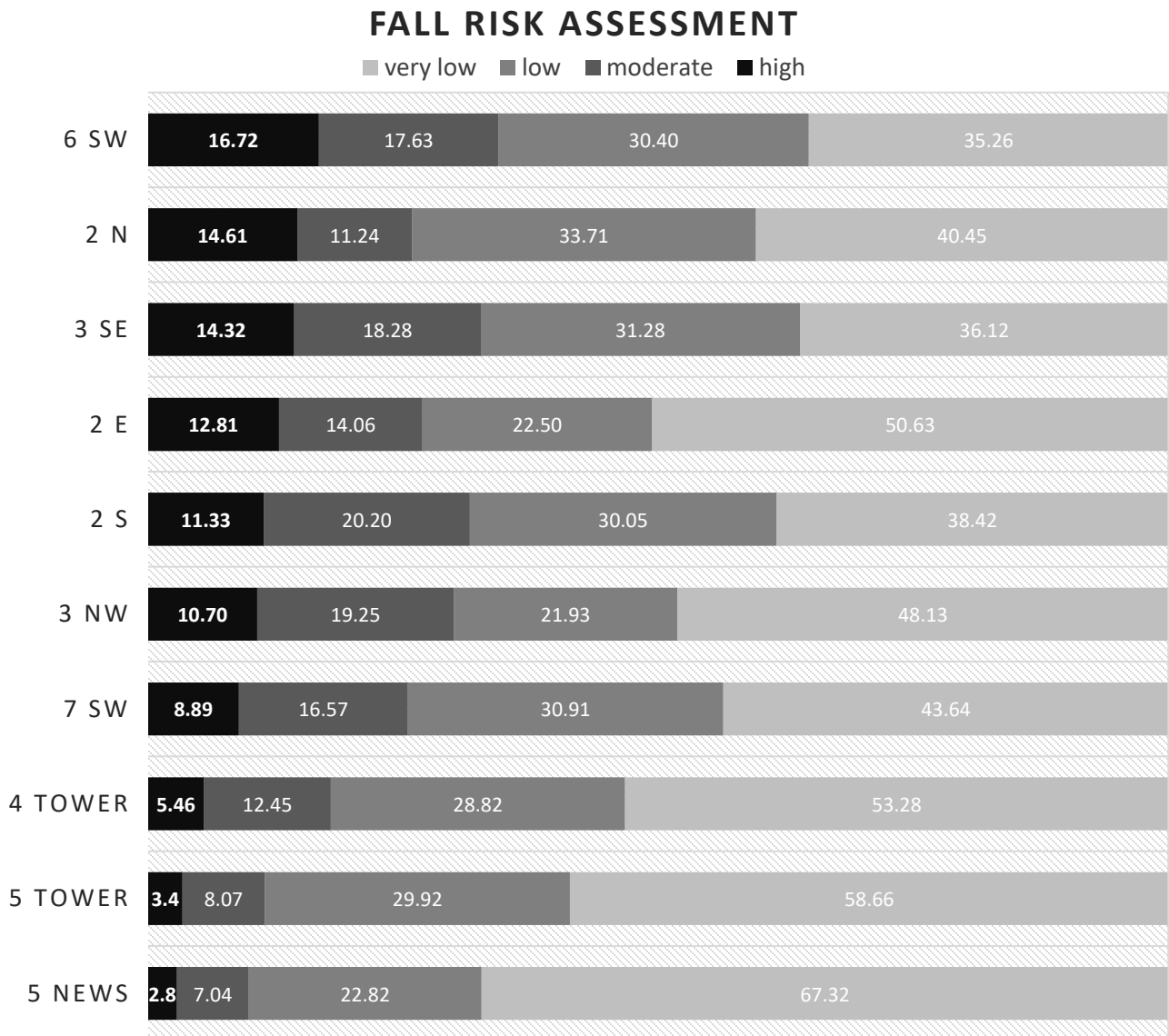
FALL RATE (9/22-2/23)



FALL RISK

“But our patients are very high risk! Other units don’t have the same type of patients.”

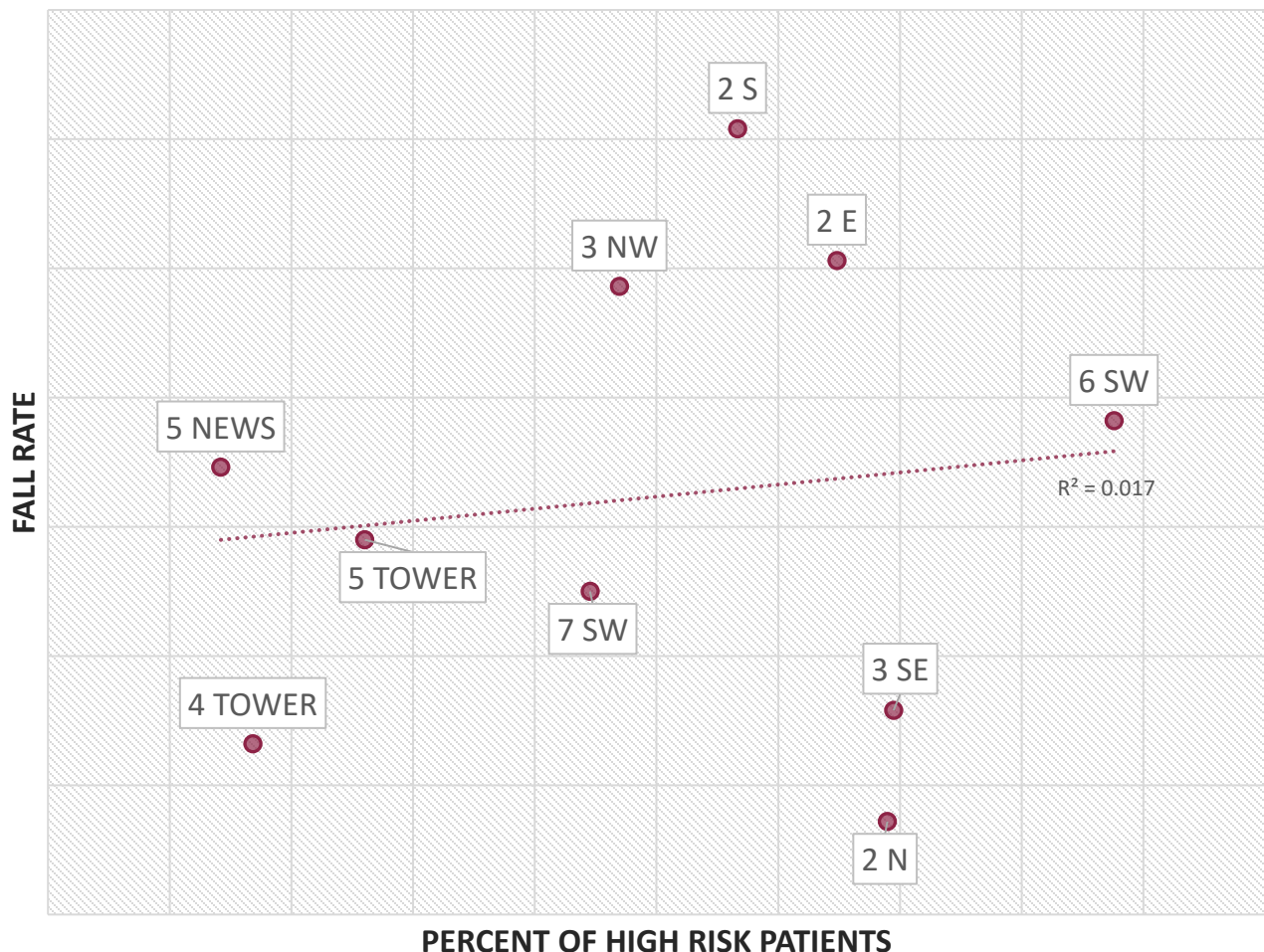
It may surprise you that the **data does not support this assumption**. 2E does have a lot of high-risk patients, but it is not proportional to the fall rate



The chart shows the fall risk assessment for patients discharged in the last 90 days. There is a lot of data, but a few things to look at:

- 2E has the 4th largest number of *high* risk patients.
- 2E has the 4th largest number of *very low* risk patients.
- Units with some of the **lowest** fall rates (2N & 3SE) have nearly the **highest** fraction of high risk patients.

We might expect units with more high-risk patients to have more falls, but this is not what is seen.



For the number of high-risk patients, some units have lower than expected fall rates (2N, 3SE) and some have higher than expected fall rates (3NW, 2S, 2E).

There are multiple possible interpretations for this:

- Maybe the **assessment tool is inaccurate**.
- Maybe we are **not accurately assessing** patients.
- Maybe we are **not charting correctly**.
- Maybe we are **missing fall risk interventions**.

“Okay but what does this mean? We already put a lot of effort into falls, what else can we do?”

FALL INTERVENTIONS

Although some things are out of our control, we should make sure we:

1. Accurately **assess** risk.
2. Do the **basics** for *every* patient.
3. **Individualize care** for *high-risk* patients.

ASSESSMENT

This is technically the RNs job, but RNs and PCTs should work together and communicate about who the highest risk patients are.

- **High risk patients should be rounded on more frequently.**
- Responding to their call lights and alarms should be prioritized.

THE BASICS

The basics – things we do for every patient – can be summed up as *purposeful hourly rounding*.

- Of all interventions, hourly rounding has arguably the largest amount of evidence for reducing falls.
- In one systematic review, 7 of 9 studies showed a significant decrease in falls.
 - The largest study involved 14 hospitals and had a **50% reduction in falls** (as well as a 30% reduction in call light usage).

The key word here is **purposeful** – just the act of walking into a room once an hour will not decrease the rate of falls. Rounding needs to address patient needs – remember the “four Ps”:

- **Pain, Position, Potty, Periphery**

Bathroom needs are particularly important to address.

- Up to **40% of falls** in the hospital are related to bathroom needs.
- **Incontinence is a risk factor** for falls.

Despite this, one large study showed “potty” is the least addressed of needs during rounding, asked only 13% of the time (compared to 53%-73% for pain/position/periphery).

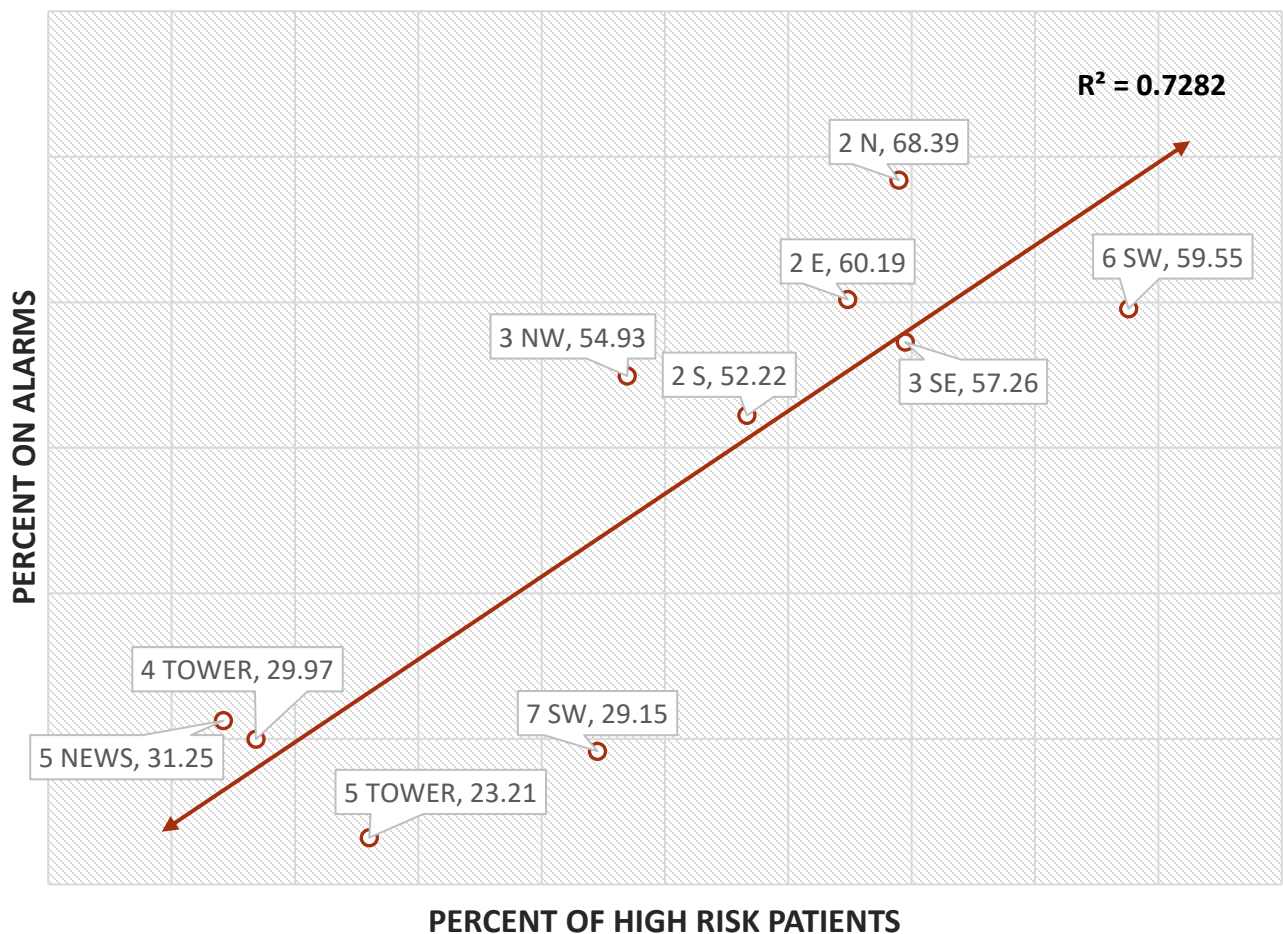
HIGH RISK PATIENTS

Interventions are like layers of security. **No single intervention works in every situation.** We need an entire “bundle” to reduce falls in (e.g., risk assessment + patient education + purposeful rounding + bed alarms + more).

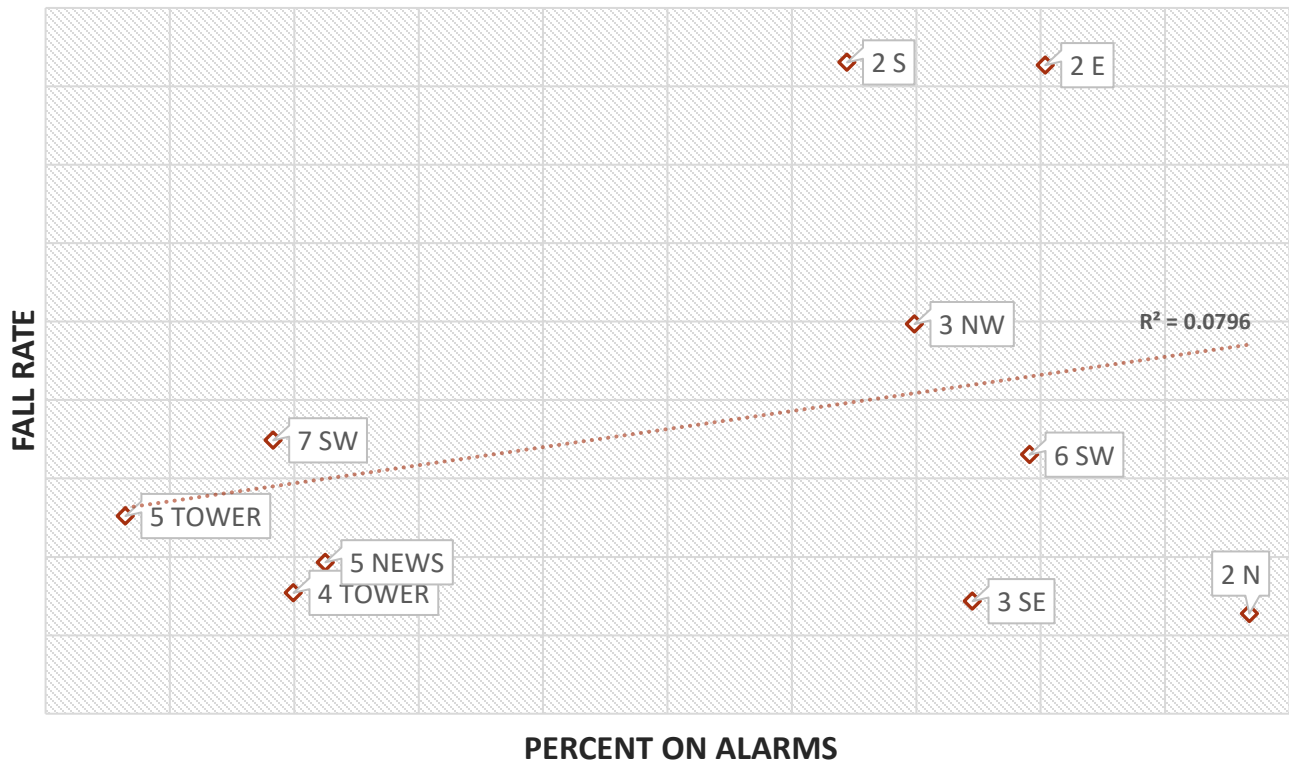
For example, bed alarms – some studies have found that in isolation **bed alarms do not reduce the rate of falls**. This may seem surprising, but I think it is something we know:

- By the time an alarm goes off, the patient may be out of bed.
- By the time someone gets to the room, the patient may have fallen.

We see this trend looking at data from Loyola. **Units with more high-risk patients have more patients on alarms.**



But having more patients on alarms does not lead to a decrease in fall rate:



You can see five units (2S, 2E, 3NW, 6SW, 3SE) that all have between 50-60% of patients on alarms, but each has a significantly different fall rate.

“Okay, so what? Bed alarms are useless? Should we even bother with them? What do we do?”

Alarms may not directly reduce falls, but they are a useful indicator that tells us who is at risk.

- Frequent alarms show us which patients are **restless, impulsive, not willing/able to follow instructions**, etc.

When someone repeatedly sets off an alarm, we need to re-assess and see if there is any intervention we can take.

- First go back to basic needs – is the patient uncomfortable, incontinent, trying to go to the bathroom, trying to reach their belongings?
 - These are “simple” solutions that we can address with rounding on the patient.
- We should not simply turn off or stop responding to the alarm.

Sometimes there is no simple solution – the patient is confused/delirious and needs additional intervention like a medication, restraints/SOMA bed, or virtual monitoring (AvaSure).

VIDEO MONITORING

Remote video monitoring the generic term for what we call AvaSure. It is a relatively new tool in fall prevention, but multiple studies show effectiveness in reducing fall rate.

I know what you may be thinking...

“I don’t see the point. AvaSure rarely works. It’s hardly any different than a bed alarm.”

There may be some validity to that, but for some patients it can be an additional layer of protection against a fall.

BENEFIT

When patients are non-cooperative, the goal is to use the least restrictive solution possible to maintain safety. The biggest argument for virtual monitoring is that it is not restrictive and does not carry additional risks to the patient.

Medicines may be necessary but are not without risk.

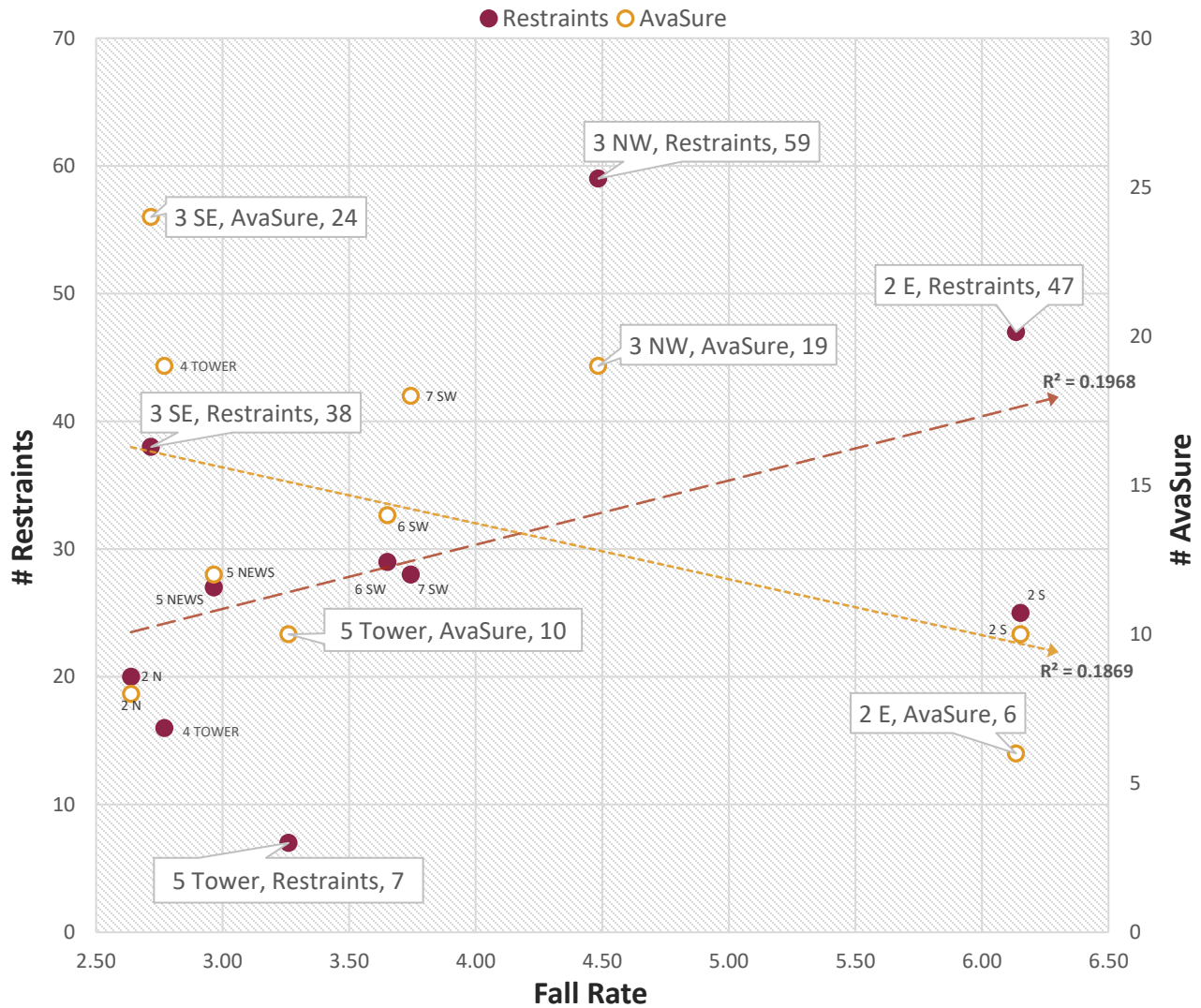
- Sometimes they sedate the patient and act as a “chemical restraint”.
- The patient may be at an even higher risk of falling as medicine takes effect or wears off.

Physical restraints are controversial when used for fall prevention.

- Studies have shown an increased rate of falls with more use of restraints.
- Restraints can contribute to delirium and agitation.
- SOMA bed is a less restrictive alternative, but not appropriate for every patient.

These trends are apparent at Loyola in the chart below

- Increased use of **restraints** in a unit is associated with a **higher fall rate**.
- Increased use of **AvaSure** in a unit is associated with a **lower fall rate**.



Although these trends are not *huge*, they are *more significant* than we previously saw comparing the percent of high fall risk patients.

This is a potential area of improvement for 2E, since we:

- Have the lowest use of AvaSure (6).
- Have the second highest use of restraints (47).

Restraints have many uses other than falls and the frequency of their use may be unavoidable, but the lack of AvaSure use is an area we can likely improve.

INDICATIONS FOR AVASURE

There are not many guidelines for the use of AvaSure at Loyola.

- AvaSure is supposed to be initiated *after* a patient falls, but there are no specific recommendations for their use in fall *prevention*.
- Could consider use of AvaSure when discontinuing restraints.

In general, AvaSure may help prevent falls in patients with certain issues:

- Confusion/disorientation (whether due to dementia, delirium, or any other cause).
- Mobility limitations, unsteady gait, or weakness.
- Urinary/fecal incontinence, urgency, or frequency.
- Impulsive behavior.
- Pseudoseizures.

EFFECTIVENESS

Video monitoring is **most effective in patients who can follow directions** or be re-directed.

- This allows the virtual monitoring attendant to provide instructions to the patient, so we do not even have to intervene.

Even if the patient does not follow directions, it can still be a useful tool.

- Some patients can get partially out of the bed before the bed alarm is triggered – the attendant may catch this before an alarm.
- Attendants can see if the patient is becoming restless or reaching for items out of the bed.
- Attendants can hear the patient if they are talking.
 - Some patients yell out for help because they do not know how to use the call light.
 - Attendants can pass along what the patient is saying (for example, that they are in pain or need to use the bathroom).

CONCLUSION

Falls remain a frequent issue on 2E and throughout the hospital. Nurses need to make sure they are accurately assessing patient risk and communicating this with other staff.

Nurses and PCTs are both responsible for purposeful rounding on patients – evidence shows that when rounding addresses patient needs, it reduces falls. We should pay particular attention to toileting needs and incontinence given their association with falls.

If a patient is at higher risk for falls, use of virtual monitoring should be considered early since it is a low risk intervention. Although it may not work in every case, it does provide an additional set of eyes to periodically check on a patient.

Virtual monitoring still relies heavily on the awareness and participation of floor staff. Alarms need to be responded to quickly – the difference between a patient falling or not is often only a few seconds.

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