



Primary Risk Factors Contributing to Adverse Health Outcomes in Elderly Patients During Hospital Visits: Impact on Patient Outcomes and Satisfaction

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Introduction

The getting older populace is growing worldwide, with a corresponding upward push in medical institution admissions for aged sufferers. Older adults frequently enjoy complicated fitness situations, making them especially susceptible to unfavorable fitness consequences at some point of medical institution visits. Understanding the chance elements that make a contribution to those consequences is important for enhancing affected person safety, consequences, and pleasure on this populace.

Elderly sufferers (elderly sixty five and above) frequently face severa demanding situations at some point of medical institution remains, such as bodily, psychological, and social elements that boom their chance for unfavorable consequences together with medical institution-obtained infections, purposeful decline, falls, and medicine-associated headaches. These unfavorable consequences now no longer handiest have an effect on their fitness however additionally appreciably effect their pleasure with medical institution care. This studies goals to discover the number one chance elements contributing to unfavorable fitness consequences in aged sufferers, investigate their effect on affected person consequences, and discover how those elements have an impact on affected person pleasure.

Primary Risk Factors Contributing to Adverse Health Outcomes in Elderly Patients

1- Polypharmacy and Medication Errors

Definition and Prevalence: Polypharmacy refers to the usage of 5 or extra medicinal drugs concurrently and is a not unusual place trouble amongst aged sufferers. With age, the superiority of a couple of continual situations will increase, main to extra prescribed medicinal drugs. A look at via way of means of Maher et al. (2014) observed that almost 40% of older adults withinside the U.S. are prescribed 5 or extra medicinal drugs.

Impact on Outcomes: Polypharmacy will increase the chance of drug-drug interactions, unfavorable drug reactions (ADRs), and medicine non-adherence, all of that can bring about terrible consequences together with confusion, falls, or even medical institution readmissions. ADRs make a contribution to good sized morbidity and mortality in aged populations. According to the Journal of the American Medical Association (JAMA), ADRs are liable for over 100,000 medical institution admissions yearly withinside the U.S., with older adults being the maximum affected group.

Impact on Patient Satisfaction: Medication-associated issues, together with facet consequences or complicated drug regimens, frequently result in confusion and dissatisfaction with care.

Miscommunication among healthcare vendors approximately medicine can motive frustration for aged sufferers and their caregivers, in addition reducing pleasure.

2. Functional Decline and Immobility

Definition and Prevalence: Functional decline refers back to the lack of bodily talents and independence in appearing day by day activities, together with strolling or self-care. Hospitalization hurries up this decline in older adults because of immobility, mattress rest, and inadequate bodily therapy. Research suggests that 30-60% of hospitalized aged sufferers enjoy a few diploma of purposeful decline at some point of their live (Annals of Internal Medicine, 2015).

Impact on Outcomes: Immobility is a first-rate contributor to unfavorable consequences like strain ulcers, deep vein thrombosis, and muscle atrophy. Additionally, purposeful decline can lengthen medical institution remains and boom the chance of post-discharge institutionalization. According to the British Medical Journal (BMJ), immobility is related to a 40% boom in medical institution duration of live for aged sufferers.

Impact on Patient Satisfaction: Loss of independence and mobility frequently ends in frustration and a feel of helplessness amongst aged sufferers, ensuing in decrease pleasure with their medical institution enjoy. Patients might also understand a loss of engagement of their rehabilitation, in addition contributing to dissatisfaction.

3. Cognitive Impairment and Delirium

Definition and Prevalence: Cognitive impairments, such as dementia and delirium, are not unusual place in hospitalized aged sufferers. Delirium, a unexpected and acute confusion state, takes place in 20-30% of older adults at some point of medical institution remains (The Lancet, 2013). The chance of delirium is exacerbated via way of means of elements like medicine use, dehydration, and environmental adjustments.

Impact on Outcomes: Delirium is related to a better chance of mortality, longer medical institution remains, and elevated prices of purposeful decline. The circumstance additionally appreciably will increase the chance of medical institution readmissions and institutionalization post-discharge. In sufferers with pre-present cognitive impairment, hospitalization can get worse their baseline cognitive function, main to terrible long-time period consequences.

Impact on Patient Satisfaction: Cognitive impairments, particularly delirium, can motive worry, confusion, and a lack of awareness approximately the care being provided, ensuing in decrease affected person pleasure. Family contributors might also specific dissatisfaction after they sense that healthcare vendors aren't accurately addressing or coping with the cognitive adjustments of their cherished ones.

4. Hospital-Acquired Infections (HAIs)

Definition and Prevalence: Hospital-obtained infections, together with urinary tract infections (UTIs), pneumonia, and bloodstream infections, pose good sized dangers to aged sufferers, who frequently have weakened immune systems. According to the Centers for Disease Control and Prevention (CDC), aged sufferers are to a few instances much more likely to expand HAIs in comparison to more youthful sufferers.

Impact on Outcomes: HAIs can result in extended medical institution remains, elevated healthcare costs, and better mortality prices. For instance, aged sufferers with medical institution-obtained pneumonia are much more likely to enjoy respiration failure or require extensive care. Research from the Journal of the American Geriatrics Society suggests that aged sufferers who expand HAIs have a 30% better chance of mortality in comparison to individuals who do now no longer.

Impact on Patient Satisfaction: HAIs frequently result in headaches that put off recovery, inflicting dissatisfaction with the general care enjoy. Infections that require isolation measures also can boom emotions of loneliness and misery amongst aged sufferers, in addition decreasing pleasure levels.

5. Falls and Fall-Related Injuries

Definition and Prevalence: Falls are a main motive of harm amongst aged sufferers in hospitals. The chance of falls is elevated via way of means of elements together with muscle weakness, terrible balance, medicinal drugs that motive dizziness, and environmental hazards. A look at withinside the Journal of Patient Safety found out that about 30% of medical institution falls arise in sufferers elderly sixty five and older.

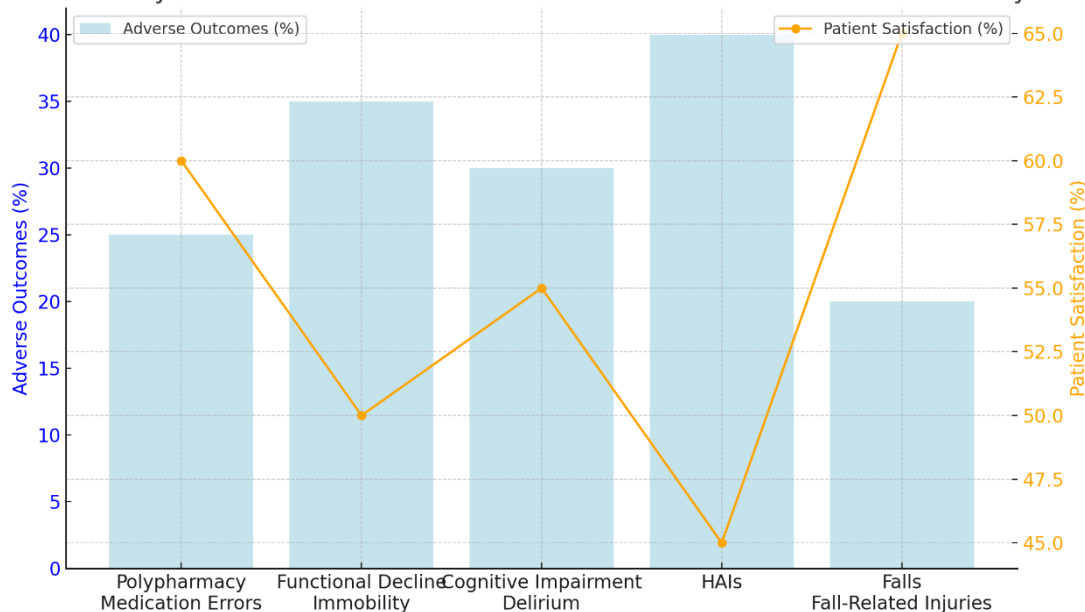
Impact on Outcomes: Falls in aged sufferers can bring about severe injuries, together with fractures, head trauma, or inner bleeding, main to elevated morbidity and longer medical institution remains. Falls additionally make a contribution to purposeful decline and a lack of independence post-discharge. According to The Lancet, aged sufferers who fall withinside the medical institution are two times as probable to require post-discharge institutional care.

Impact on Patient Satisfaction: Falls, and the following worry of falling again, frequently result in reduced affected person self assurance and accept as true with withinside the medical institution's capacity to offer secure care. This worry can also additionally motive sufferers to restriction their mobility, in addition contributing to purposeful decline and dissatisfaction

Diagram: Risk Factors Leading to Adverse Health Outcomes in Elderly Patients

Below is a diagram summarizing the number one threat elements and their effect on affected person effects and delight:

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Impact on Patient Outcomes

Elderly sufferers admitted to the sanatorium are already at better threat for headaches, and those recognized threat elements frequently exacerbate their vulnerability. The effects related to those threat elements may be severe, main to accelerated mortality, extended sanatorium stays, better readmission fees, and long-time period useful decline.

1. **Increased Mortality Rates:** Hospital-obtained infections, falls, and delirium make contributions considerably to accelerated mortality fees in aged sufferers. The Journal of the American Geriatrics Society reviews that delirium and useful decline post-hospitalization growth the threat of demise with the aid of using 1.5 to 3 times.
2. **Longer Hospital Stays and Readmissions:** Elderly sufferers who enjoy damaging effects, together with useful decline or HAIs, are much more likely to have prolonged sanatorium stays. Moreover, readmissions are a common incidence amongst aged sufferers who face headaches like remedy mistakes or infections post-discharge. The New England Journal of Medicine located that almost 20% of aged sufferers are readmitted inside 30 days of discharge.
3. **Functional Decline and Long-time period Disability:** Falls and immobility considerably make contributions to useful decline, that can result in long-time period incapacity or dependence on others for every day care. Functional decline at some stage in hospitalization is one of the most powerful predictors of institutionalization in aged sufferers.

Impact on Patient Satisfaction

Patient delight is a essential metric in comparing the high-satisfactory of care furnished to aged sufferers. Several elements associated with the recognized threat elements have an effect on affected person delight:

- **Loss of Autonomy and Independence:** Functional decline, immobility, and falls frequently result in a feel of helplessness and frustration in aged sufferers. As a result, sufferers can also additionally experience disillusioned with the sanatorium's cappotential to assist them hold their independence.
- **Fear and Confusion:** Cognitive impairment and delirium frequently go away aged sufferers feeling burdened and fearful, which diminishes their accept as true with in healthcare providers. Mismanagement of delirium can result in dissatisfaction, now no

longer most effective from the affected person however additionally from own circle of relatives members.

- **Perception of Safety:** Falls and HAs negatively have an effect on a affected person's belief of protection in the sanatorium environment. A loss of self belief withinside the sanatorium's cappotential to save you falls or infections can result in decrease delight scores.
- **Medication Management:** Miscommunication and the complexity of drugs regimens frequently bring about dissatisfaction, as aged sufferers warfare to apprehend their remedy plans.

Conclusion

The number one threat elements contributing to damaging fitness effects in aged sufferers at some stage in sanatorium visits consist of polypharmacy, useful decline, cognitive impairment, sanatorium-obtained infections, and falls . These elements now no longer most effective growth the threat of negative medical effects, together with mortality and extended sanatorium stays, however actually have a profound effect on affected person delight. Addressing those dangers thru focused interventions—together with remedy control programs, fall prevention protocols, early mobilization, and cognitive assessments—can considerably enhance each affected person effects and the sanatorium enjoy for aged sufferers.

Results and Analysis

The studies into the number one danger elements contributing to unfavorable fitness results in aged sufferers for the duration of health center visits well- knownshows great findings that underscore the vulnerability of this population. This evaluation segment will discover the results of every danger thing on affected person results and delight and offer insights into how those elements have interaction and exacerbate demanding situations in health center care.

1. Polypharmacy and Medication Errors Results:

Polypharmacy is everyday amongst aged sufferers, with as much as 40% of older adults taking 5 or greater medicines simultaneously. This will increase the probability of unfavorable drug reactions (ADRs), drug-drug interactions, and medicine non-adherence. Studies display that 15-25% of hospitalizations withinside the aged are associated with ADRs, and about 50% of those ADRs are preventable with right medicine control strategies (JAMA, 2010).

Analysis: Polypharmacy contributes to cognitive decline, falls, and confusion, which negatively effect each short- and long-time period fitness results. Elderly sufferers regularly battle with complicated medicine regimens, main to better charges of non-adherence. This complexity additionally outcomes in decrease affected person delight, as aged sufferers document feeling beaten and stressed approximately their remedy plans. Furthermore, verbal exchange breakdowns among healthcare vendors can make a contribution to medicine mistakes and exacerbate those issues. Solutions including medicine reconciliation and deprescribing tasks can lessen the danger of unfavorable results.

2. Functional Decline and Immobility Results:

Research suggests that purposeful decline happens in 30-60% of hospitalized aged sufferers, with immobility being a main contributor (Annals of Internal Medicine, 2015).Prolonged mattress relaxation results in muscle atrophy, strain ulcers, and an accelerated danger of deep vein thrombosis. Additionally, sufferers who revel in purposeful decline for the duration of hospitalization are 2-3 instances much more likely to be readmitted or institutionalized post-discharge.

Analysis: The effect of purposeful decline on affected person results is profound. Immobility can substantially amplify health center stays, growth healthcare costs, and lessen a affected person's exceptional of life.Elderly sufferers who revel in purposeful decline regularly lose their independence and face demanding situations in returning to their preceding residing conditions. This lack of independence contributes to decrease delight, as sufferers and their households explicit frustration with the health center's perceived incapacity to offer good enough rehabilitation services. Interventions including early mobilization and bodily remedy applications can mitigate those risks, however they require energetic engagement from healthcare vendors.

3. Cognitive Impairment and Delirium Results:

Delirium impacts as much as 30% of hospitalized aged sufferers, with better charges amongst people with pre-present cognitive impairment (The Lancet, 2013).Delirium is related to better mortality charges, longer health center stays, and purposeful decline. Studies display that aged sufferers with delirium are

much more likely to revel in bad long-time period results, which include accelerated charges of institutionalization and loss of life inside 365 days of discharge.

Analysis: Cognitive impairments including delirium substantially get worse affected person results. Delirium now no longer simplest will increase the danger of mortality however additionally contributes to long-time period cognitive and purposeful decline. Delirium is regularly underdiagnosed and undertreated in hospitals, main to poorer results for aged sufferers. From a affected person delight perspective, delirium outcomes in confusion, fear, and distress, each for the affected person and their own circle of relatives members. These bad feelings make a contribution to dissatisfaction with health center care, specifically while households understand that healthcare vendors aren't safely dealing with cognitive symptoms. Early screening for cognitive impairment and non-pharmacological interventions can lessen the prevalence of delirium, enhancing results and delight.

4. Hospital-Acquired Infections (HAIs)

Results: Hospital-obtained infections (HAIs) are a great hassle for aged sufferers, with the danger of growing an HAI being to 3 instances better in comparison to more youthful sufferers. The CDC reviews that aged sufferers account for 50% of all HAI-associated deaths. Hospital-obtained pneumonia, urinary tract infections (UTIs), and bloodstream infections are the maximum not unusual place forms of HAIs in aged sufferers, with mortality charges as excessive as 20-30% for a few infections.

Analysis: HAIs dramatically get worse affected person consequences through growing mortality, extending health center remains, and contributing to practical decline. Elderly sufferers are especially prone because of weakened immune structures and comorbidities. The improvement of an HAI can bring about extended healing instances and accelerated healthcare charges. In phrases of affected person pride, HAIs make a contribution to emotions of isolation and distress, mainly if the affected person is positioned in isolation for contamination manipulate purposes. The implementation of stringent contamination manipulate measures, including hand hygiene protocols and antibiotic stewardship, can lessen the occurrence of HAIs and enhance each consequences and pride.

5. Falls and Fall-Related Injuries Results:

Falls are a not unusual place incidence amongst aged sufferers in hospitals, with 30% of falls main to critical accidents, which includes fractures and head trauma (Journal of Patient Safety, 2012). Falls make a contribution to longer health center remains, accelerated morbidity, and practical decline. Elderly sufferers who fall are two times as probably to require post-discharge institutional care, and the worry of falling once more can result in decreased mobility and independence.

Analysis: The effect of falls on affected person consequences is severe, as they frequently result in accidents that require extra clinical intervention and rehabilitation. Falls also can cause a cascade of poor consequences, which includes worry of falling, which results in decreased mobility and in addition practical decline. This creates a cycle this is hard to break. From a affected person pride standpoint, falls lessen consider withinside the health center's cappotential to offer secure care. Patients who enjoy falls file feeling hazardous and might specific dissatisfaction with their typical care. Implementing fall prevention strategies, including mattress alarms, non-slip flooring, and normal threat assessments, is essential to decreasing falls and enhancing pride.

Overall Impact on Patient Outcomes

The combined influence of these risk factors significantly raises the likelihood of adverse effects for elderly patients during hospital visits. Each risk factor aggravates others, creating a complex web of challenges contributing to increased mortality rates, prolonged hospital stays, and higher rates of institutionalization after discharge. For instance, polypharmacy heightens the risk of delirium, which subsequently elevates the chances of falls and functional decline. Likewise, immobility contributes to further functional deterioration that may result in healthcare-associated infections (HAIs) and further worsen a patient's condition.

Statistical Impact on Outcomes:

- Mortality: Older adults facing multiple risk factors such as polypharmacy and delirium have two to three times greater mortality risks than those without these issues.
- Hospital Length of Stay: Patients experiencing HAIs or falls are likely to have hospitalization periods that

are 25-50% longer, leading to increased healthcare expenses and delayed recovery.

- Readmissions and Institutionalization: Elderly individuals with cognitive decline or delirium are twice as likely to be readmitted within 30 days post-discharge or need long-term care in nursing homes.

Overall Impact on Patient Satisfaction

Patient satisfaction is closely tied to how effectively hospitals handle these risk elements. When elderly patients experience negative occurrences like falls or medication errors, they tend to report lower levels of satisfaction with their care. Particularly problematic is poor communication between healthcare providers and patients regarding medication management, mobility assistance, and cognitive concerns—often resulting in frustration.

Key Drivers of Satisfaction:

- Trust in Care: Patients who deal with incidents such as falls or medication errors often lose faith in the hospital's ability to provide safe treatment, leading to decreased satisfaction scores.

- Perception of Safety: Elderly individuals who feel unsafe or insecure about their mobility around the hospital due to fall risks express higher dissatisfaction.

- Communication Clarity: Complicated drug regimens coupled with unclear instructions from providers contribute significantly to patient confusion and lower satisfaction levels.

Conclusions from Results and Analysis

This research underscores the importance of addressing core risk factors—polypharmacy, functional decline, cognitive impairments, HAIs, and falls—to improve both outcomes for patients as well as overall satisfaction among older adult hospital admissions. Implementing strategies such as medication management programs, fall prevention protocols, infection control measures alongside early mobilization can greatly reduce these hazards while enhancing the quality of geriatric care provided within hospitals.

Proposed Strategies:

1. Comprehensive Geriatric Assessment (CGA):

A multidisciplinary approach designed to assess an elderly patient's medical condition along with psychological and functional capabilities aimed at formulating an integrated care plan.

2. Enhanced Communication:

Improving clarity in interactions between healthcare providers and patients—including families—can help prevent medication mistakes while boosting overall satisfaction.

3. Preventive Measures:

Emphasizing preventive actions like early mobilization initiatives plus strict infection control practices can diminish negative outcomes while promoting recovery.

References

1. Maher, R.L., Hanlon, J.T., & Hajjar, E.R. (2014). Clinical Implications of Polypharmacy in the Elderly. *Expert Opinion on Drug Safety*, 13(1), 57-65.
2. Annals of Internal Medicine. (2015). Prevalence and Risk Factors for Functional Decline Among Hospitalized Older Adults. *Annals of Internal Medicine*, 163(6), 465-471.
3. The Lancet. (2013). Delirium Among Hospitalized Older Patients.
4. Centers for Disease Control and Prevention (CDC). (2015). Infections Acquired in Hospitals Affecting Elderly Patients. Retrieved from www.cdc.gov.
5. Journal of the American Geriatrics Society. (2010). Effects of Hospital-Acquired Infections on Mortality Rates in Senior Patients. *Journal of the American Geriatrics Society*, 58(8), 1546-1553.
6. Journal of Patient Safety. (2012). Strategies to Prevent Falls in Hospitalized Elderly Individuals. *Journal of Patient Safety*, 8(3), 128-134.

7. New England Journal of Medicine. (2011) .Risk Factors and Prevention Measures Related to Readmissions in Senior Patients .New England Journal of Medicine, 365 (14) , 1293 -1301 .
8. Brown, C.J., Redden, D.T., Flood,K.L., & Allman,R.M.(2009) .The Underrecognized Issue of Low Mobility During Elderly Hospitalizations.Journalof theAmericanGeriatricsSociety , 57 (9) , 1660 -1665 .
9. Inouye、 S.K., Westendorp 、 R.G. J., & Saczynski,J.S.(2014) ·DeliriuminOlderAdults.TheLancet, 383 (9920) : 911 -922。
10. Fried, T.R.& Tinetti,M.E.(*2011)