CMS Webinar: Evidence-based Interventions to Reduce Avoidable Hospitalizations of Nursing Home Residents

Participants:

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Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents

- More information, including the full funding opportunity announcement can be found at http://innovation.cms.gov/initiatives/rahnfr/
- CMS will not be discussing or answering questions regarding the technical requirements of the Initiative (e.g., eligibility, how to apply, etc.). Questions of this nature may be submitted to NFInitiative2012@cms.hhs.gov.
- The views expressed in this presentation are the views of each speaker and do not necessarily reflect the views or policies of the Centers for Medicare & Medicaid Services. The material provided is intended for educational use and the information contained within has no bearing on participation in any CMS program.

Overview of Promising Interventions

- Care Protocols and Staff Training (Ouslander)
  - INTERACT II reduced hospital admissions by 17% (Ouslander, 2011).
- Professional Staff Models – MD/NP Collaboration (Bonner)
  - Evercare reduced hospital admissions by 47% and emergency department use by 49% (Kane, et. al, 2004).
  - Nursing facility-employed staff provider model in NY reduced Medicare costs by 16.3% (Moore & Martelle, 1996).
- Medication/Pharmacy Interventions (Hanlon)
- Organizational Changes – Advancing Excellence in LTC Collaborative (http://www.nhqualitycampaign.org) (Koren)
- Other ancillary strategies: Staff & caregiver education, Telemedical support, EMR and alerts, Advanced Care Planning
- ALL OF THE ABOVE.

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The INTERACT Program: What is It and Why Does It Matter?

(“***Interventions to Reduce Acute Care Transfers”***)

Is a **quality improvement program** designed to improve the care of nursing home residents with acute changes in condition

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

- Includes evidence and expert-recommended clinical practice tools, strategies to implement them, and related educational resources
- The basic program is located on the internet:

http://interact2.net

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

The INTERACT Interdisciplinary Team

Joseph G. Ouslander, MD	Florida Atlantic University
Laurie Herndon, GNP	Mass Senior Care Foundation
Gerri Lamb, PhD, RN, FAAN	Arizona State University
Ruth Tappen, EdD, RN, FAAN	Florida Atlantic University
Sanya Diaz, MD	Florida Atlantic University
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Sandra Simmons, PhD	Vanderbilt University
Annie Rahman, MSW	California Association of LTC Medicine
Jo Taylor, RN, MPH	The Carolinas Center for Medical Excellence
Mary Perloe, GNP	The Georgia Medical Care Foundation
Dan Osterweil, MD	California Association of LTC Medicine
Alice Bonner, PhD, GNP	Center for Medicare and Medicaid Services

In collaboration with participating nursing homes

INTERACT Interventions to Reduce Acute Care Transfers

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

Acknowledgement

The INTERACT Program and Tools were initially developed by Joseph G. Ouslander, MD and Mary Perloe, MS, GNP at the Georgia Medical Care Foundation with the support of a contract from the Center for Medicare and Medicaid Services.

The current version of the INTERACT Program, including the INTERACT II Tools, educational materials, and implementation strategies were developed by Drs. Ouslander, Gerri Lamb, Alice Bonner, and Ruth Tappen, and Ms. Laurie Herndon with input from many direct care providers and national experts in a project based at Florida Atlantic University supported by The Commonwealth Fund. The Commonwealth Fund is a private foundation supporting independent research on health policy reform and a high performance health system.

The INTERACT Program: What is It and Why Does It Matter?

CMS Special Study in Georgia – Expert Ratings of Potentially Avoidable Hospitalizations

Based review of 200 hospitalizations from 20 NHs"

	Definitely/Probably YES	Definitely/Probably NO
Medicare A	**69%**	**31%**
Other	**65%**	**35%**
HIGH Hospitalization Rate Homes	**75%**	**25%**
LOW Hospitalization Rate Homes	**59%**	**41%**
TOTAL	**68%**	**32%**

Ouslander et al: J Amer Ger Soc 58: 627-635, 2010

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: Background and Why it Matters

CMS Study of Dually Eligible Medicare/Medicaid Beneficiaries

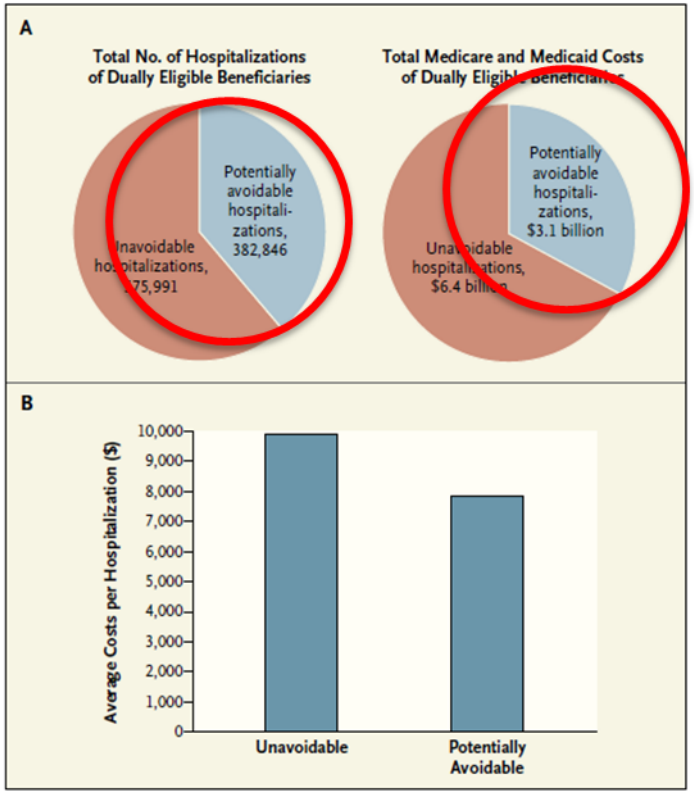
The NEW ENGLAND JOURNAL of MEDICINE

Perspective

SEPTEMBER 29, 2011

Reducing Unnecessary Hospitalizations of Nursing Home Residents

Joseph G. Ouslander, M.D., and Robert A. Berenson, M.D.



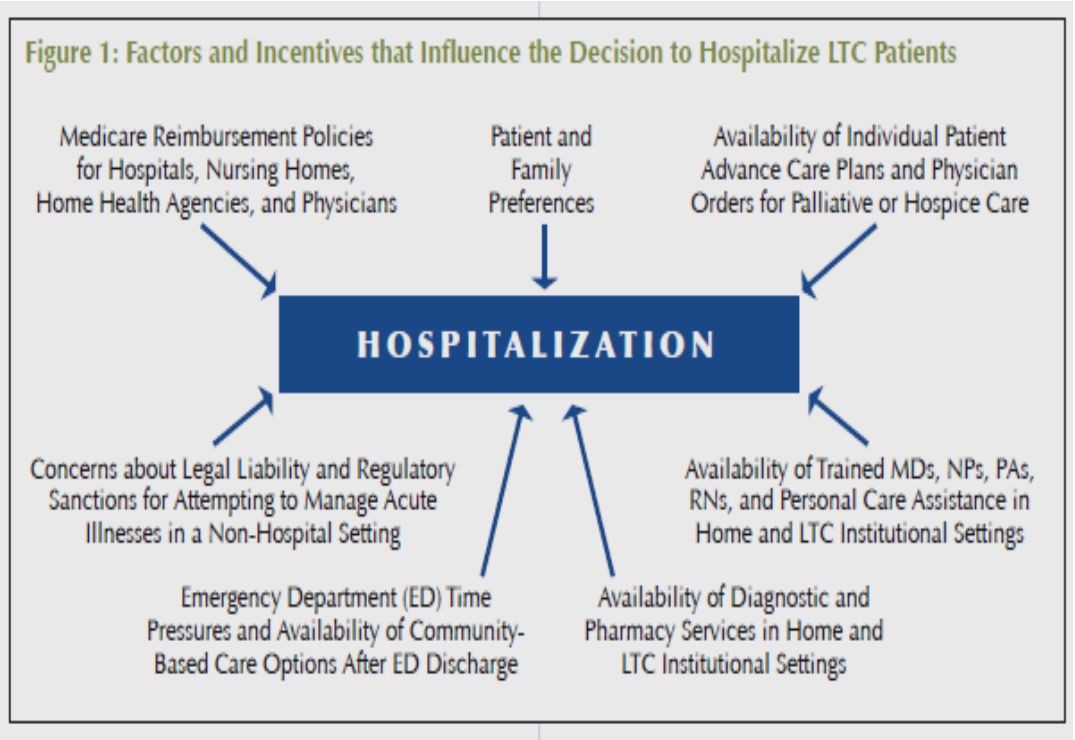
Unavoidable and Potentially Avoidable Hospitalizations of Nursing Home Residents Eligible for Both Medicare and Medicaid, 2005.

Data are based on all hospitalizations of 1,571,920 dually eligible Medicare and Medicaid beneficiaries in the year 2005. Of the total hospitalizations included, 72% were from nursing homes, accounting for 85% of the total costs of avoidable hospitalizations. Data are from the Centers for Medicare and Medicaid Services.

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

- Defining “Preventable”, “Avoidable”, “Unnecessary” hospitalizations is challenging because numerous factors and incentives influence the decision to hospitalize
- Risk adjustment is very complicated



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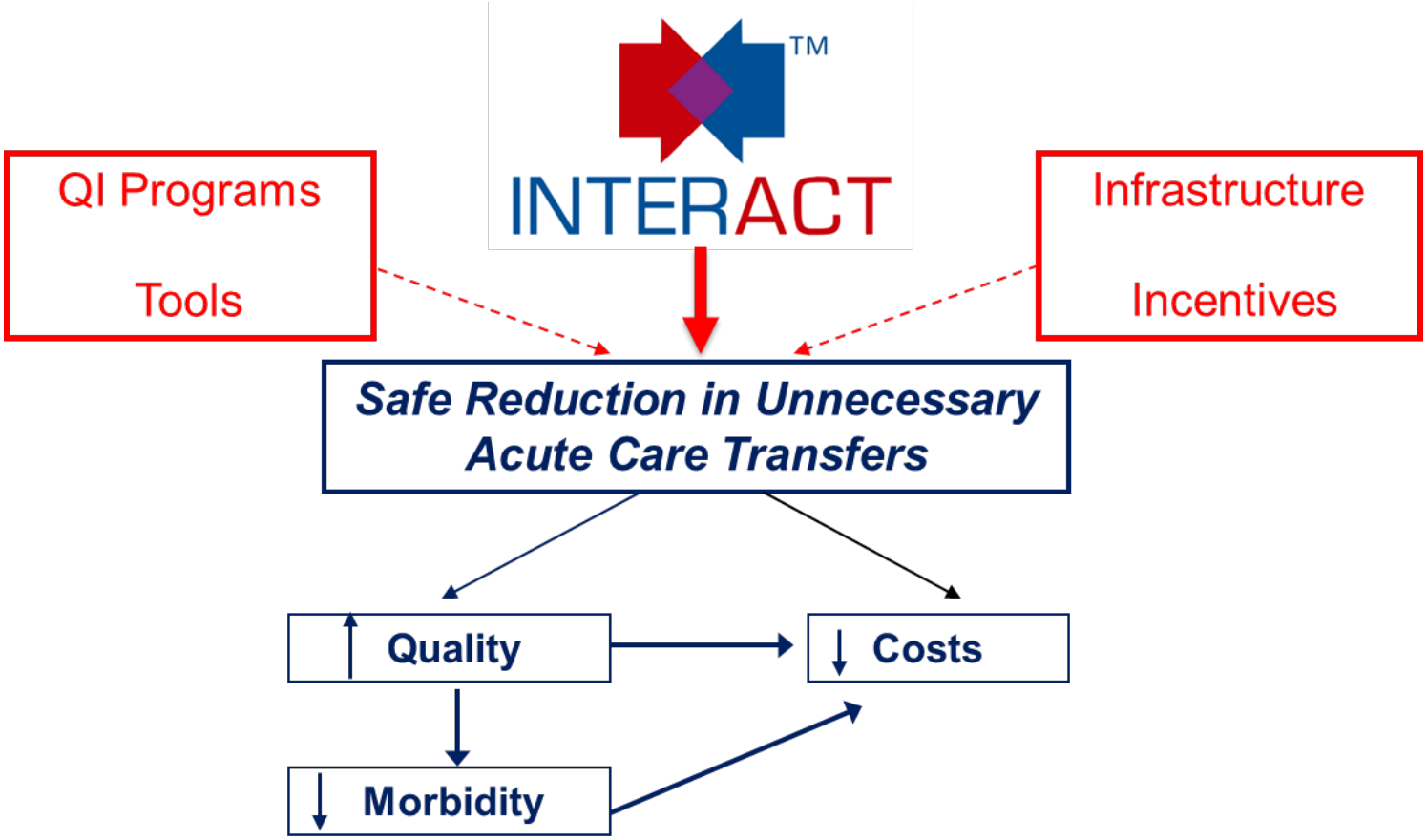
(Available at: http://www.ltqa.org/wp-content/themes/ltqaMain/custom/images//PreventableHospitalizations_021512_2.pdf

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

What Do You and Your Facility Need to Take Advantage of These Opportunities?



Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

- Can help your facility safely reduce hospital transfers by:

1. ***Preventing conditions from becoming severe*** enough to require hospitalization through early identification and assessment of changes in resident condition
2. ***Managing some conditions in the NH*** without transfer when this is feasible and safe
3. ***Improving advance care planning*** and the use of palliative care plans when appropriate as an alternative to hospitalization for some residents

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

- The goal of ***INTERACT*** is to improve care, ***not to prevent all hospital transfers***
  - In fact, ***INTERACT*** can help with ***more rapid transfer of residents who need hospital care***

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

- Originally developed in a project supported by the Center for Medicare and Medicaid Services (CMS)
- Revised based on input from staff from several nursing homes and national experts in a project supported by The Commonwealth Fund

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

Communication Tools

Decision Support Tools

Advance Care Planning Tools

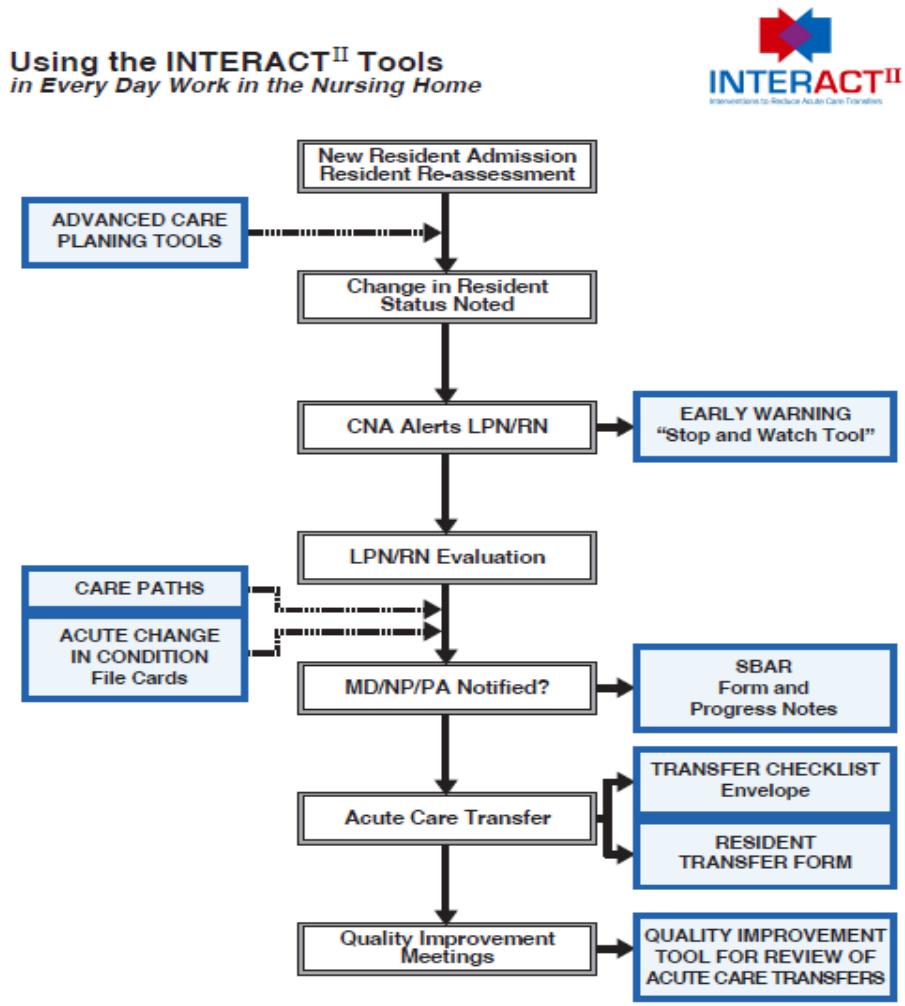
Quality Improvement Tools

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

The ***INTERACT II*** tools are meant to be used together in your daily work in the nursing home

http://interact2.net



Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

Implementation Model in the Commonwealth Fund Grant Collaborative

- On site training (part of one day)
- Facility-based champion
- Collaborative phone calls with up to 10 facility champions twice monthly facilitated by an experienced nurse practitioner
  - Availability for telephone and email consults
- Completion and faxing of QI Review Tools

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

Commonwealth Fund Project Results

Facilities	Mean Hospitalization Rate per 1000 resident days (SD)		Mean Change (SD)	95% Confidence Interval	p value	Relative Reduction in All-Cause Hospitalizations
	Pre intervention	During Intervention				
All INTERACT facilities (N = 25)	3.99 (2.30)	3.32 (2.04)	- 0.69 (1.47)	-0.08 to -1.30	0.02	**17%**
Engaged facilities (N = 17)	4.01 (2.56)	3.13 (2.27)	- 0.90 (1.28)	-0.23 to -1.56	0.01	**24%**
Not engaged facilities (N = 8)	3.96 (1.79)	3.71 (1.53)	- 0.26 (1.83)	-1.79 to 1.27	0.69	**6%**
Comparison facilities (N = 11)	2.69 (2.23)	2.61 (1.82)	- 0.08 (0.74)	- 0.41 to 0.58	0.72	**3%**

Ouslander et al, J Am Geriatr Soc 59:745–753, 2011

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

Commonwealth Fund Project Results - Implications

1. For a 100-bed NH, a reduction of 0.69 hospitalizations/1000 resident days would result in:
   - 25 fewer hospitalizations in a year (~2 per month)
   - $125,000 in savings to Medicare Part A (using a conservative DRG payment of $5,000)

2. The intervention as implemented in this project cost of ~ $7,700 per facility

3. Net savings ~ $117,000 per facility per year
   - Medicare could share these savings to support NHs to further improve care

Ouslander et al, J Am Geriatr Soc 59:745–753, 2011

Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

The INTERACT Program: What is It and Why Does It Matter?

- Questions?
- Comments?
- Suggestions?

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Supported by grants from the Retirement Research Foundation and The Commonwealth Fund

Potential Roles for Enhanced Care and Coordination Providers in Long Term Care

Alice Bonner, PhD, RN

Director, Division of Nursing Homes
Office of Clinical Standards and Quality

Centers for Medicare & Medicaid Services

April 17th, 2012

Why consider enhanced APN/MD roles in your facility?

- Growing body of evidence that LTC residents benefit from APN or team care, specifically improved clinical outcomes, lowered hospitalization rates and decreased costs
- What do models of care look like? What are the ways that APNs and physicians can collaborate and what are the challenges to implementation?

Evercare Studies

- Incidence of hospitalizations was twice as high in control versus Evercare residents ($p<.001$)
- Same pattern for preventable hospitalizations ($p<.001$)
- Savings of $103,000 per year in hospital costs (in 2003 dollars)
- More efficient care, comparable quality

Kane, RL et al, 2003. The Effect of Evercare on Hospital Use. *JAGS*. 51:1427-1434.

Kane, RL et al, 2004. Effect of an Innovative Medicare Managed care program on the quality of care for nursing home residents. *Gerontologist*. 44(1): 95-103.

CMS Special Study on Potentially Avoidable Transfers

Expert Panel Review of Potentially Avoidable Transfers

Contributing Factors

Better ***quality of care*** would have prevented or decreased severity of acute change

One ***physician visit*** could have avoided the transfer

Better **advance care planning** would have prevented the transfer

The same ***benefits*** could have been achieved at a lower level of care

The resident's overall condition limited his ability to ***benefit*** from the transfer

Resources Needed to Manage in the NH

Physician or physician extender present in nursing home at least 3 days per week

Exam by ***physician or physician extender*** within 24 hours

Nurse practitioner involvement

Registered nurse (as opposed to LPN or CNA) providing care

Availability of ***lab tests*** within 3 hours

Capability for ***intravenous fluid*** therapy

Ouslander et al: J Amer Ger Soc 58: 627-635, 2010

Definition of Collaboration

- Collaboration is a joint and cooperative enterprise that integrates the individual perspectives and expertise of various team members
- Themes of collaborative relationships include collegial relationships, teamwork, open communication, recognition of one anothers' expertise; respect, and trust

Advantages to Collaborative Practice Models

- NP may take calls from facilities or practices and contact physicians as necessary
- Provides detailed assessment of the patient for physician review
- Maintains ongoing and current resident information, permitting the NP to provide updates on residents' general health status

Advantages to Collaborative Practice Models

- Coordinates and facilitates specialty referrals and communication between specialists and primary care providers
- Can provide alternate regulatory visits in long term care settings as appropriate, freeing up physician time for more acute problems
- Facilitates care coordination among family, staff and medical providers

Advantages to Collaborative Practice: clinical quality

- In SNF/NF, advanced practitioner onsite more often; provides timely, detailed assessment of acutely ill residents
- Onsite evaluation of ill residents may enable higher level of care to be delivered in the nursing facility, avoiding unnecessary hospital transfer
- More detailed, onsite evaluation of fever may reduce injudicious antibiotic use and may reduce antimicrobial resistance in LTC over time
- More advanced, onsite evaluation of skin problems may prevent pressure ulcer development
- More advanced assessment of behavioral issues in dementia may prevent unnecessary psychiatric hospitalization

Advantages to Collaborative Practice: clinical quality

- In LTC, expanded provider role may include nursing staff education, mentoring; encouraging professional development
- Presence of an enhanced team may reduce nursing staff turnover
- Team may assist with data tracking and management, systems improvements (Quality Assurance Performance Improvement or QAPI)

Advantages to Collaborative Practice: physician satisfaction

- Based on a survey of nearly 700 physicians who worked in collaborative practices with nurse practitioners, 90% reported that they were very satisfied with these relationships as well as the care provided (Evercare,2003; Kane, Flood, Keckhafer, Bershadsky & Lum, 2002)

Advantages to Collaborative Practice: resident satisfaction

- Residents and/or their families report very high satisfaction (95%) with collaborative care practices
  - GNPs spend considerable amounts of time communicating with patients, families and care providers (Kane et al., 2002)
  - This supports the physician's primary care role, and enhances the resident's and family's satisfaction with care

Barriers to Collaborative Practice or External Providers

- Lack of understanding of the roles
- Questions about how to integrate with existing care teams
- Uncertainty related to regulatory processes or reimbursement systems

Developing a Collaborative Relationship

- The majority of nurse practitioners work in states that require a collaborative agreement with a physician
- This does not mean that the physician must be physically present whenever the nurse practitioner sees patients
- The collaborative agreement provides the structure for how the physician-nurse practitioner relationship will be operationalized

Collaborative Practice Agreement

- The collaborative agreement should
  - establish the roles and responsibilities of all parties
  - optimize the roles of each
  - build specific strengths of each NP and/or MD into the agreement

Collaborative Agreement Guidelines

- Keep guidelines general: avoid specifics except for procedures
- Avoid setting specific time frames
- **Make it realistic**
- Read, sign, and know what the agreement states and adhere to it

Collaborative Agreement Guidelines

- Document evidence of adherence
- Know the scope of practice [for the NP] within the state and make sure the agreement is in alignment with the current scope of practice
- Provide documentation of NP skills with regard to specific procedures (i.e. suturing)
- Add new providers when they are hired

Getting Started: collaborative practice

- Communication is the key to effective collaboration
  - **talk** about who is doing what
  - on-call and coverage issues
  - practice philosophies
  - availability for consultation
  - communicate frequently on clinical issues
  - include the director of nursing and administrator in these discussions

Getting Started: what are the variables that impact practice and caseload?

- Number of facilities (windshield time)
  - Work outside of LTC
- Quality of facilities
  - Availability of specialists
- Number of physicians
- Training (background) of physicians
- Number of residents
- Acuity of residents (NF vs SNF)
- Receptivity of the facility to collaborative practice (nursing facility culture and readiness)
- Cultural background of NPs and MDs

Designing a model for full-time long term care practice

- Consider employment structure:
  - NP/MD employed by group or individual practice, or in own independent practice
  - NP/MD employed by a management company
  - NP or CNS employed by the facility, MD employed in a practice
  - NP/MD employed by a managed care organization
  - NP/MD employed by a university (faculty practice)

The Role of the Medical Director

- Be aware of any new provider seeing residents in the facility
- Review credentials and practice guidelines
- Have information on supervising or collaborating physicians, APNs, coverage schedule

The Role of the Medical Director

- Understand employment arrangements (providers employed by the facility vs employed by the group practice or managed care entity)
- Meet with practitioners and review practice guidelines and expectations
- Obtain periodic data to review (e.g., visit schedules, sample documentation, resident/family/staff satisfaction)

How to Successfully Integrate External Providers into the Nursing Facility

- Establish preferred provider relationships with hospitals, medical practices, and other provider organizations
- Adopt a closed medical staff model
- Develop "Teaching Nursing Homes" with relationships to academic medical centers for teaching and research
- Provide career ladder opportunities for NH staff and mentoring by external APNs and MDs
- Dotted-line accountability to NH Medical Director or DON
- Create interdisciplinary teams

Summary

- External providers may play an important role in providing timely, quality care to residents in nursing facilities
- Other roles may include staff development, training, quality improvement
- Various models have been implemented; facilities should consider the best fit with a facility's culture

Resources

- http://www.gapna.org
- http://www.amda.com
- http://www.nurse.org/acnp
- http://www.aanp.org/default.asp
- website for your state board of registration in nursing or medicine




Advancing Excellence in America's Nursing Homes: Higher performance through better workplace practices

Mary Jane Koren, M.D., MPH
VP, LTC Quality Improvement
The Commonwealth Fund
Immediate Past Chair, Advancing Excellence

What Advancing Excellence is

- ***AE is a voluntary, data-driven quality improvement program – over 53% of all NHs are registered (8388 NHs)***
- Led by a national coalition of 25+ organizations including consumer advocates, NH associations, professional groups and federal agencies working together to help NHs measurably improve care
- Data demonstrates a "campaign effect"
- Includes consumers and front-line staff
- Targets 9 meaningful goals that track national priorities
- Provides free educational resources and tools for NH performance improvement

Advancing Excellence in America's Nursing Homes

http://www.nhqualitycampaign.org

A Model for Change

"New" AE Goals
Phasing in through 2012

- Staff Stability
- Consistent Assignment
- Person-Centered Care and Decision-Making
- Pressure Ulcers
- Safely Reducing Hospitalizations
- Infections
- Mobility
- Medications (Antipsychotic use)
- Pain Management

Moving From Staff Turnover to Staff Stability

- Staff turnover (ratio of new hires per year to average employment) is very high and costly ($4.1 billion annually)
  - National average is 71% for CNAs and
  - About 50% for LPNs and RNs
- A close link between staff turnover and quality:
  - "The higher the rate of turnover, the higher the impact on quality" – from studies by Nick Castle, U Pittsburgh
- Other staffing characteristics are equally important
  - Staff retention or stability (% of current employees who have worked at the NH for >1 year)
  - Vacancy rates
  - Call outs
  - Use of agency staff

Advancing Excellence in America's Nursing Homes

http://www.nhqualitycampaign.org

Top reasons for leaving

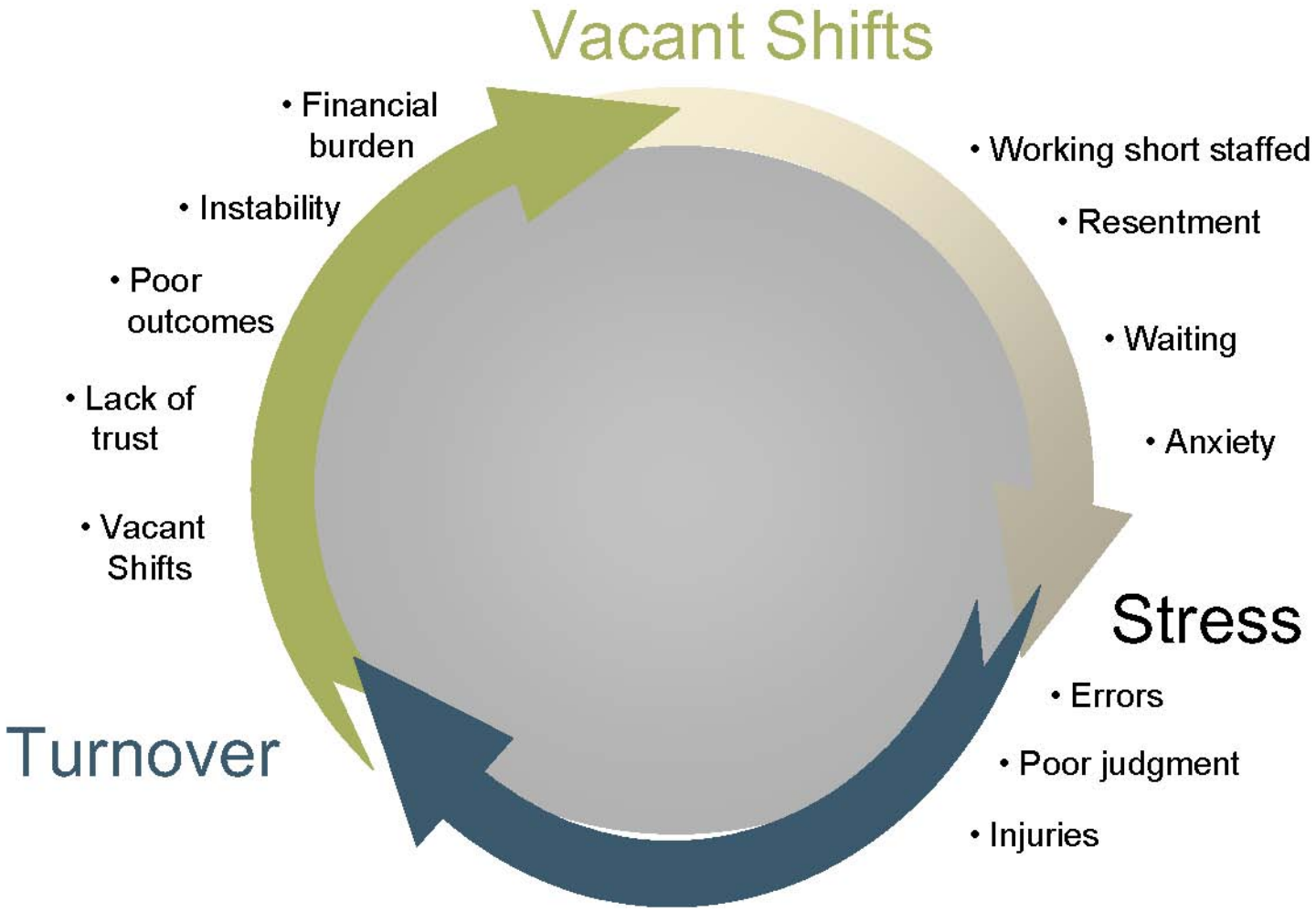
- Too many residents
- Pay was too low
- Not valued by the organization
- Dissatisfaction with supervisor
- Lack of opportunity to advance
- Could not provide quality care

Mickus, M., Luz, C., Hogan, A.,

"Voices from The Front." 2004

Advancing Excellence in America's Nursing Homes

http://www.nhqualitycampaign.org



SOURCE: David Farrell, MSW, LNHA
Director, Care Continuum

How to achieve improvement

- What matters most to employees?
  - Management cares about its employees
  - Management listens to employees
  - Help with stress and burnout
  - Supervisor cares about you as a person
  - Supervisor shows appreciation
  - Workplace is safe

Advancing Excellence in America's Nursing Homes

http://www.nhqualitycampaign.org

Consistent Assignment: How many CNAs "touch" a resident in a month?

- AE definition: Same CNA takes care of the same resident whenever they are at work.
- A resident centered approach – CNAs know "their" residents really well so can detect changes in condition early
- Best case: about 6 - 8 CNAs over the course of a month
- Evidence for effectiveness: Using consistent assignment 85% of the time results in fewer deficiencies, 41% fewer vacancies, and 31% less turnover (Dr. Nick Castle, U Pittsburgh)

Advancing Excellence in America's Nursing Homes

http://www.nhqualitycampaign.org

Advancing Excellence
in America's Nursing Homes

Making nursing homes better places to live, work and visit.

SEARCH POWERED BY GOOGLE

Participating nursing homes in Phase 2:[+]
7046 (44.9%*)

- 4725 Charter members
- 1732 New participants

Advancing Excellence in America's Nursing Homes

Register today to help advance excellence!

Why register as a nursing home?	Why register as a consumer?	Why register as staff?
Nursing Homes: Register today!	Consumers: Register today!	Staff: Register today!

Greetings to All! Phase 2 of the Campaign has successfully passed its mid-point. To Campaign Participants, if you have not set targets for the organizational goals, now is the time to take stock and see if you need a mid-course adjustment. To non-Campaign participants, it is never too late to join and be part of our national effort to make nursing homes better places to live, work and visit! Click here to set targets and here to join!

There is a lot happening with the Campaign that I want to share with you!

- **AE QI Tools.** Quality Improvement monitoring tools are now available for six of the Advancing Excellence Goals: Staff Turnover, Consistent Assignment, Restraints, Pressure Ulcers, Pain and Advance Care Planning. We have also made suggestions for the other two goals: Resident and Staff Satisfaction. Use these tools as part of your internal QI programs. They provide you with appropriate summary and feedback information for your management teams, QA committees, and others interested in your QI activities.

RE-ENROLL NOW!
FIND RESOURCES
FIND PARTICIPANTS
SUBMIT DATA
SET TARGETS
GET HELP

NEW!

Download the Tool for Tracking Pain

Download the Tool for Tracking Advance Care Planning

Download the Sample Advance Care Discussion Form

Goal 1 - Staff Turnover: Nursing homes will take steps to minimize staff turnover in order to maintain a stable workforce to care for residents.

- Implementation Guide
- Interventions Table: Staff Retention
  This guide is an overview of information published between 2004-2009 regarding successful or potentially successful interventions to retain staff.
- Tool for Calculating Staff Turnover (XLS)
  This easy-to-use template is a mechanism for tracking and monitoring monthly turnover. This workbook will also help nursing home staff prepare entries for submission of turnover data for Goal #1.
- NEW webex Staff Turnover: WebEx overview for tool use | Transcript
  - Note: The WebEx WRF player is required to playback the recording. Download WRF player.
- NEW webex Staff Turnover: Instructional WebEx for tool use and website data entry | Transcript
  - Note: The WebEx WRF player is required to playback the recording. Download WRF player.
- Fact Sheet for consumers
- Fact Sheet for nursing home staff members
- Phase 1 Materials MORE INFO:
  - Webinar: Staff Stability: Learn to Manage your Resources and Improve Staff Retention (PowerPoint or PDF, with separate audio [may take a few minutes to load]).
  - Staff Stability Toolkit
    This toolkit, published by Quality Partners of Rhode Island, incorporates experiences and lessons learned in over 400 nursing homes. It is designed to serve as a resource for homes just getting started with efforts to reverse turnover as well as employers who have already started to address recruitment and retention and need further assistance in a specific area.

Flow Diagram – Staff Turnover Process I

1. Identify current turnover rates for RNs, LPNs, CNAs, DON, and NHA

2. Seek and identify causes underlying staff turnover, including directly from discussion with staff

3. Identify goals for improving turnover and retention rates and develop interventions

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Interventions Table: Staff Retention

Type of Intervention	Citation & Evidence Rating	Targeted Sample & Aim	Specific Interventions & Related Information	Outcomes/Find
Consistent/ Permanent Assignment (continued)	Rahman, 2009[7] **Moderate to Excellent** – Literature review	13 reports from literature review: • 6 experimental trials • 4 evaluation research reports • 3 NH surveys **Aim:** Literature review exploring the following: • Does consistent assignment improve resident care and quality of life? • Do nursing home residents prefer consistent assignment? • Do nurse aides prefer consistent assignment? • Does consistent assignment reduce staff turnover?	Literature review of PubMed database searching for 'consistent assignment nursing home' and 'primary care nursing' Consistent assignment (primary focus on CNAs): 6 experimental trials of which: • Only 1 study evaluated CNA consistent assignment as the single test component (Patchner, 1989) • 5 others – mutlicomponent interventions featuring a 'team approach' ➢ CNAs working in pairs as a team (Teresi, et al, 1993 & Teresi, et al, 1993[a]) ➢ Both nurses & CNAs working in pairs as a team (Cox, et al, 1991; Kaeser, 1989 & Campbell, 1985) • All involved 4 or fewer NHs • None employed randomized control trial design Of the 13 reports reviewed: • 6 studies evaluated impact of consistent assignment on resident outcomes • 4 studies evaluated resident preference for consistent assignment • 7 studies evaluated staff preference for consistent assignment • 7 studies evaluated consistent assignment & effects on turnover rates	Reviewer's note: many studies ha variables due to multicomponent i & some studies have methodologi limitations (noted by *) **Consistent assignment & reside** • Positive (Campbell, 1985; Pa • Mixed – some positive & som al, 1991; Zimmerman, et al, 2 • Mixed – some positive, some 2004; Teresi, et al, 1993) **Resident preference for consist** • Positive findings (Kaeser, 19 1993) • Null findings (Cox, et al, 199 **Staff preference for consistent** • Positive (Bowers, et al, 2000 et al, 2004; Campbell, 1985*) • Mixed – some positive, some 1989*; Teresi, et al, 1993) • Mixed – some positive, some (Cox, et al, 1991) • Negative (Kaeser, 1989 – qu **Consistent assignment & effect** • Increased turnover rates (Be • Decreased turnover rates (B qualitative finding; Campbell, 1989*) • No effect on turnover rates (B Burgio, et al, 2004) • Depends on frequency of rota 1991*) **Policy implications**: Additional in enhancing staff communication, in approaches or ensuring care coor needed to meet more significant i

Instructions

Please print this worksheet for easy-to-follow instructions.

Monitoring CNA Staff Turnover [SAMPLE]

CAMPAIGN GOAL #1: Staff Turnover: Nursing homes will take steps to minimize staff turnover in order to maintain a stable workforce to care for residents.

NOTE: Campaign Goal #1 ... indicators be entered on campaign website for years 2010 & 2011.

Step 1: Type in the Nursing Home Name and 6-digit Medicare Provider Number (if available).

Nursing Home Name: Provider Number (6-digit):

Month & Year [A]	Number of CNA Staff Employed on the First Day of Each Month [B]	Number of CNA Staff Terminated by the Last Day of Each Month [C]	Turnover Rate Per Month	Cumulative Terminations Year-to-Date	Average Number of CNA Staff Employed Year-to-Date	Annualized Turnover Rate Year-to-Date
January 2010	100	2	2.0%	2	100.0	3.0%
February 2010	103	3	2.9%			7.4%
March 2010	95	4	4.2%			13.6%
April 2010	97	1	1.0%			15.2%
May 2010	102	0	0.0%			11%
June 2010			1.9%			0%
July 2010			1.0%			5%
August 2010			2.9%			23.9%
September 2010						
October 2010						
November 2010						
December 2010						

Step 2: Enter Number of Staff and Number of Terminations in yellow columns . Monthly and annualized turnover rates will automatically calculate.

Step 3: Print worksheet or make note of MONTH , NUMBER OF STAFF & NUMBER OF TERMINATIONS for entry into the Quality Campaign website.

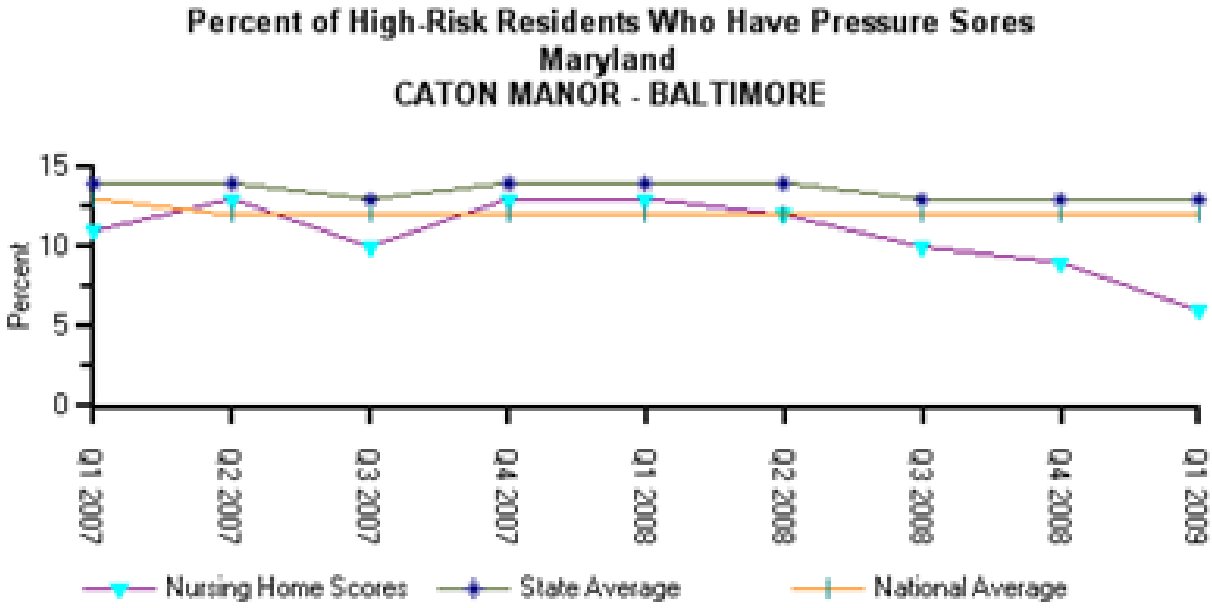
2010

Total # of Data Collection Months	8
Total # of CNA Staff Terminations During the 8 Months	16
Average # of CNA Staff During the 8 Months	100.3
Annualized Turnover Rate	**23.9%**

[Click to go to website for data entry.]

Step 4: Click the web link to open the NH Quality Campaign website to enter MONTH, NUMBER OF STAFF & NUMBER OF TERMINATIONS.

The graph below shows High-Risk Pressure Ulcer scores for the selected nursing home, state and/or nation over time:



Year	Quarter	NH Score	State Average*	National Average*
2007	1	11	14	13
2007	2	13	14	12
2007	3	10	13	12
2007	4	13	14	12
2008	1	13	14	12
2008	2	12	14	12
2008	3	10	13	12
2008	4	9	13	12
2009	1	6	13	12

* - State and national averages are the average of nursing home scores as reported on NH Compare.

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Public Information

Pressure Ulcers

Staff stability and consistent assignment are fundamental pre-conditions for safely reducing hospital admissions of NH residents.

Description of AE's goal to safely reduce hospitalizations:

NH residents are often transferred to hospitals when they have an acute change in their clinical condition. Many such changes in condition can be managed safely without transfer, avoiding the trauma and risks associated with hospitalization. In order to achieve this goal, NH staff must be prepared and have the necessary resources available. Working on this goal will assist NH staff to safely care for residents on-site using evidence-based and expert recommended tools and practices to reduce rates of hospitalization without compromising residents' well-being or wishes.

Advancing Excellence in America's Nursing Homes

http://www.nhqualitycampaign.org

Medication-Related Interventions to Reduce Unnecessary Hospitalization of Nursing Home (NH) Patients

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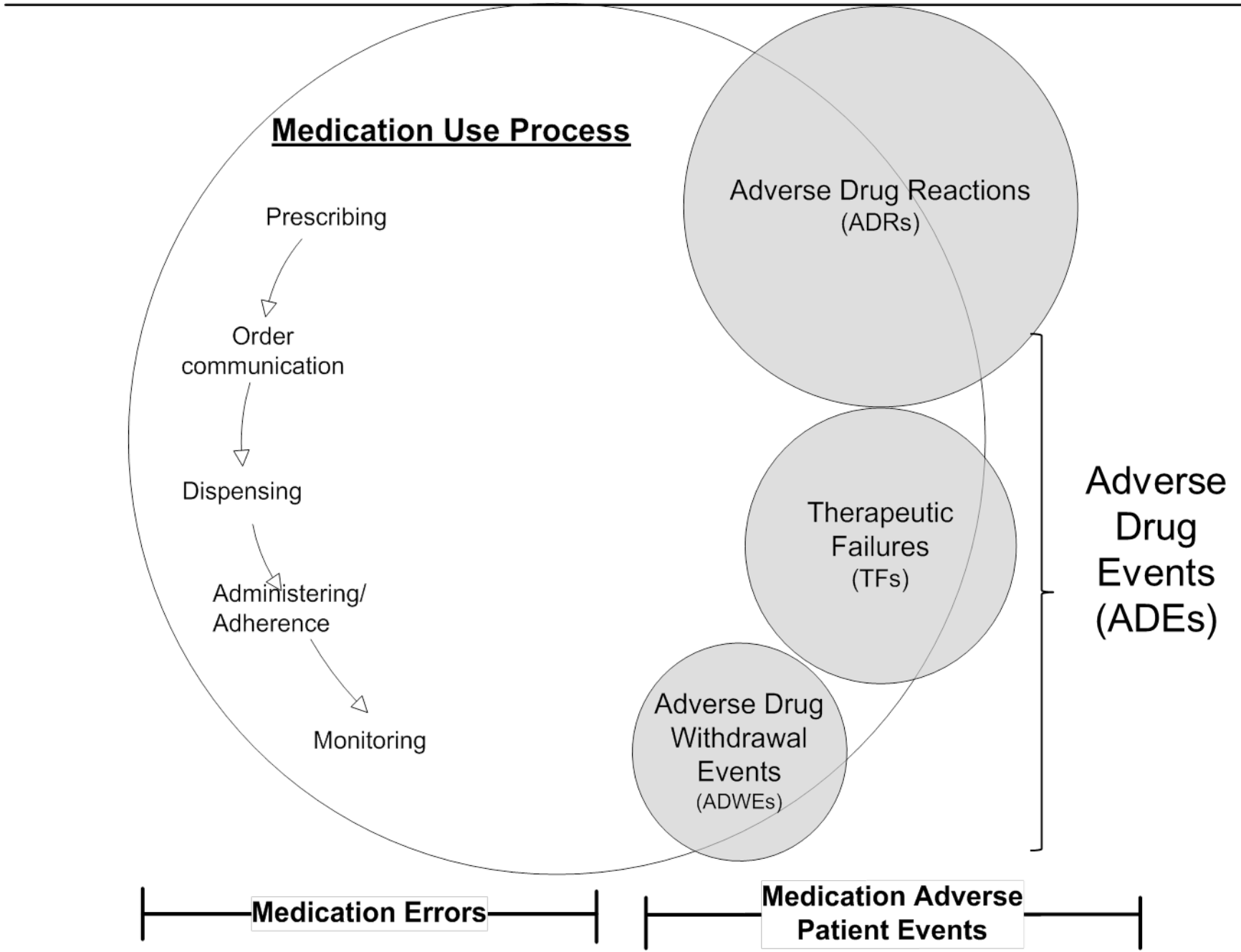
Medication-Related Problems in Older Adults.



Incidence of ADEs/ADRS in NH Elders

Author/Year	# NH's/months	Method	#/100 pt mo.
Gerety M/ 1993	1/18	Chart review	2.60
Cooper J/ 1996	2/48	Pharm. Drug Regimen Review (DRR)	2.79
Gurwitz JH/ 2000	18/12	Chart review	1.56
Gurwitz JH/ 2005	2/9	Chart review	Any- 9.8 Prev.- 4.1*

*preventable mainly due to ordering/monitoring errors

Medication Changes and ADEs in NH Patients

- Sample: 87 NH patients transferred to hospital and back
- Design: Case series
- Methods: Chart review
- Outcome: Possibility of ADE as determined by pair of MDs

Boockvar K, et al. Arch Intern Med. 2004;164:545-550.

Medication Changes and ADEs in NH Patients

- Results: 14 possible ADEs (likely to be 4 ADRs, 8 ADWEs, 2 TFs);

  Most occurred within 2 weeks of med change;

  Most common drugs involved were carbamazepine and colchicine;
  greater risk with number of comorbid illnesses

Boockvar K, et al. Arch Intern Med. 2004;164:545-550.

Medication Errors in Nursing Homes

Setting: 55 care homes in UK

Sample: 256 patients

Design: Cross-sectional

Results: 69.5% had 1+ medication errors;
39.1% with Rxing; 27% monitoring;
36.7% with dispensing; 22.3% medication administration errors;

Most had low potential for harm;

? due to lack of health system taking overall responsibility and poor communication

Barber ND, et al. Qual Saf Health Care 2009;18:341-6.

Randomized Controlled Trials (RCTs) to Optimize Prescribing/Monitoring and Health Outcomes in Older People

- Methods: Systematic review of literature from 1975-2011

- Data Synthesis: 18 studies met inclusion criteria
  Interventions included: 1 multifaceted; 2 computerized decision support systems (CDSS); 7 education; 1 multidisciplinary; 5 clinical pharmacist

Kaur S, et al., Drugs Aging 2009;26:1013-28; Marcum Z, et al. Am J Geriatr Pharmacother 2010; 8: 83-200; Loganathan M, et al. Age Ageing 2011;40:150-162; Hughes CM, et al. Ther Adv Drug Saf 2011;2:103-112; Forsetlund L et al., BMC Geriatr 2011;11:16

RCTs with Pharmacist Intervention to Improve Suboptimal Rxing/Monitoring and Fewer ADEs/Hospitalization in NH Adults

Author/yr	Intervention	NHs/Sample	Results
Furniss/ 2000	RPh. DRR	14/330	Fewer number of drugs; no change in hospital use
Roberts/ 2001	Clin. pharm	52/3,230	Fewer number of drugs; no change in ADEs
Crotty/ 2004	RPh. transit. coordinator	20/715	Fewer MAI; fewer hospital uses; no change in ADEs
Zermansky/ 2006	RPh. DRR	65/661	Fewer number of drugs and falls; no change in hospital use

Other RCTs to Improve Suboptimal Rxing/ Monitoring & Fewer ADEs/Hospital Use in NH PTs

Author/yr	Intervention	NHs/Sample	Results
Ulfvarson/ 2002	Med. review by 2 MDs	9/80	Greater drug changes; no change in ADEs and hospital use
Loeb/ 2005	Multifaceted	24/4217	Fewer antibiotics for UTI; no change in hospital use
Gurwitz J/ 2008	CDSS	2/1118	Greater response to alerts; no change in ADEs
Field/ 2010	SBAR* for warfarin	26/435	No change in INR tests; greater wnl INR; fewer ADE (ns)

*__S__ituation, __B__ackground, __A__ssessment, __R__ecommendation

Newer RCTs to Improve Suboptimal Rxing/Monitoring & Fewer ADE/Hosp. Use in NH Pts.

Author/yr	Intervention	NHs/Sample	Results
Lapane/ 2011	RN& RPh/ GRAM® software	25/6523	Fewer falls from delirium; fewer ADE hospital use (ns)
Pope/ 2011	Multidisp. drug review	2/225	Fewer number of drugs; no change in hospital use

Enhancing the Detection and Management of Adverse Drug Events in the Nursing Home

Principal Investigator: Steven M. Handler, MD, PhD, CMD

Funding: AHRQ (R01HS018721)

Methods

Design:	Cluster RCT-IT enhanced RPh intervention
Setting:	Four NHs affiliated with Univ. Pittsurgh Medical Center (UPMC)
Data:	MDS, Lab, Pharmacy data, Theradoc® software; chart review
Subjects:	Physicians who work in four UPMC NHs.
Outcomes:	Any, serious ADEs; time to ADE response
Stats:	Multivariable GEE; Repeated measures ANCOVA; Cox Proportional Hazard Models

Summary

- ADEs/ADRs are common in nursing homes and are related to suboptimal prescribing/monitoring
- A number of promising interventions have been shown to improve prescribing/ monitoring of medications in nursing homes
- Future RCTs with larger sample sizes will be needed to detect reductions in preventable ADE-related hospitalizations