User Guidelines for the Job Aid
Putting It All Together:
RAI-MDS© and P.I.E.C.E.S.™ Integration

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I. Introduction

For successful RAI Implementation, a fully integrated RAI practice environment is necessary. Streamlining business processes and avoiding duplicate assessments was identified as a critical contributing element to this success. In the spring of 2008, the Long-Term Care Homes Common Assessment Project (LTCH CAP) launched a streamlining initiative in the LTC Homes. The intent of this initiative was to enable business process changes that would reduce assessment duplication thus promoting a leaner assessment methodology and improved workload efficiency and effectiveness.

With the success of this streamlining initiative, it was no surprise when the LTC Associations, on behalf of the LTC homes, requested that the RAI-MDS and P.I.E.C.E.S. Framework be investigated for potential streamlining of assessment and/or integration of the assessment processes.

As a result of this request, a working group, comprised of researchers, clinicians, and other stakeholders along the continuum of care was called together. The group membership was based on the following requirements:

- Recommendations for integration and/or replacement of scientifically-based assessments require the expertise of researchers
- Integration of the assessment instruments requires that the researchers and clinicians have a mutual understanding of the RAI-MDS and the other assessment processes that they are attempting to compare
- Input from front-line clinicians is essential since 'usability' is a significant factor for successful application of any recommendation for integration of assessment instruments in clinical practice
- Assessments should be considered in the context of an integrated health information system as individuals move along the continuum of care and from one sector to another

The RAI-MDS and P.I.E.C.E.S. Integration Working Group was successful in developing a RAI-MDS and P.I.E.C.E.S. Integration Job Aid that allows for the streamlining of the RAI assessment and P.I.E.C.E.S. 3-Question Assessment and Care Planning Framework:

> *The information captured in the Resident Assessment Instrument-Minimum Data Set (RAI-MDS) and the (P.I.E.C.E.S.) (Physical, Intellectual, Emotional, Capabilities, Environment, Social) Framework can be integrated to enhance the person's and his/her TEAM care planning process. The purpose of the "Putting it All Together" job aid is to build upon and demonstrate how the information captured in the RAI-MDS and the P.I.E.C.E.S. 3-Question Assessment Framework can be integrated to enhance the care planning process, eliminate unnecessary assessment duplication and identify who may benefit from more in-depth assessment and "point- in- time" screening".*

II. Acknowledgements

Thank you to researchers, clinicians, and representatives from the MOHLTC, CIHI, OACCAC, and LTCH CAP who dedicated their time and expertise to the successful development of the RAI-MDS and P.I.E.C.E.S. Integration tools – all to enhance the care and quality of life for individuals in LTC both home care and long term care homes.

Dr. Ken LeClair, Professor & Chair, Division of Geriatric Psychiatry, Queen's University

Dr. Chris Perlman, Associate Director, Homewood Research Institute

Dr. Paul Stolee, Associate Professor Health Informatics, Department of Health Studies and Gerontology, University of Waterloo

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Stephanie Glenn, LTCH CAP, CCIM

David Moss, LTCHCAP, CCIM

Thank you, also, to other partners who visited the RAI-MDS & P.I.E.C.E.S. Integration Working Group and contributed information that provided perspective from the Ontario Stroke Strategy, Palliative Care, and Geriatric Psychiatry:

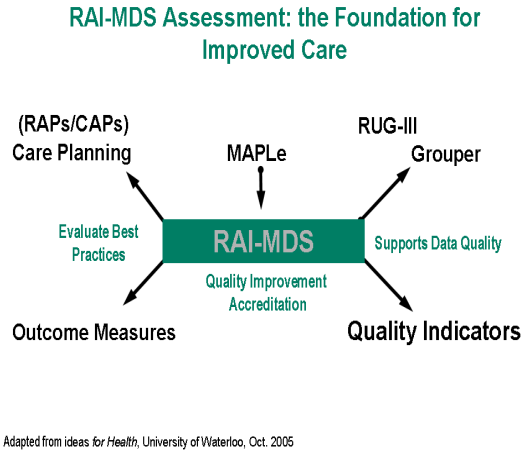
- Gwen Brown, Regional Stroke Community & LTC Coordinator, Kingston, Ontario
- Sharon Preston, Palliative Care Pain & Symptom Management Consultant, Kingston, Ontario
- Ruth McDonnell, Case Manager, Geriatric Psychiatry, Kingston, Ontario

III. Overview of RAI-MDS © and P.I.E.C.E.S.™

What is the RAI-MDS?

The RAI-MDS was developed by interRAI, a multinational consortium of over 45 clinicians and researchers from approximately 20 countries. The RAI-MDS 2.0 is one in a series of instruments, which comprise an integrated health information system. All of these instruments have consistent terminology, common core items, and a common conceptual approach that emphasizes the identification of strengths, needs and preferences of the person. interRAI assessment systems are comprised of a comprehensive, whole-person assessment, outcome measures and care planning protocols that encourage an individualized restorative approach to the care planning processes. Examples of interRAI assessments in use in Canada include the MDS 2.0 in LTC Homes and Continuing Complex Care (CCC) settings, RAI-HC in Home Care, and RAI-MH for inpatient mental health settings. Each instrument in the interRAI suite of instruments has been rigorously tested for international validation, reliability and comparability.

There are 4 basic applications of the RAI 2.0 and 5 for the RAI-HC. The assessment instrument is the **foundation** as all applications/outcomes are derived directly from the assessment instrument. It is important to note that the primary purpose of the RAI-assessment is to facilitate care planning and person-centered care.



Adapted from ideas *for Health*, University of Waterloo, Oct. 2005

1. **Assessment Protocols, CAPs**[1] provide a link between the assessment and the plan of care by providing a systematic review of factors that may contribute to the need for intervention in a number of areas. The assessment protocols are intended to provide information to the clinical team as they develop a plan of care for the person.
2. **Outcome Measures** are scales that describe the person in a series of functional domains, for example, cognitive performance, depression, pain, activities of daily living, and social engagement. Outcome measure scores that are determined at the time of the assessment can be used as a source of information to inform care planning; scores can be compared over time as reassessments are completed giving 'real-time' feedback on whether or not care planning interventions have been effective. This gives rise to the development of best practice guidelines for care planning and interventions.

[1] The interRAI Clinical Assessment Protocols (CAPs) were released by CIHI in May 2008. Jurisdictions that have not implemented CAPs continue to use Resident Assessment Protocols (RAPs) for the RAI 2.0 and Client Assessment Protocols (CAPs) (for the RAI-HC.

3. **MAPLe[2]** used to determine priority levels for community and institutional services identifies clients at risk for institutionalization and caregiver burnout
4. **Resource Utilization Groups (RUG-III),** classify persons based on their individual characteristics and the resources that they use (i.e. case mix).
3. **Quality Indicators** can assist organizations to identify areas for improvement and areas of strength based on comparisons with other like organizations.

interRAI Outcome Measures

The Outcome Measures, derived from the interRAI assessment were developed by interRAI. Examples of the validation of some RAI Outcome Measures with other recognized assessments are as follows:

interRAI Scale	Industry Gold Standard
Cognitive Performance Scale	Mini Mental State Exam
Depression Rating Scale	Hamilton Depression Rating Scale and the Cornell Scale for Depression
Pain Scale	Visual Analogue Scale
Aggressive Behaviour Scale	Cohen-Mansfield Agitation Inventory
interRAI Pressure Ulcer Risk Scale	Braden Scale for Predicting Pressure Sore Risk

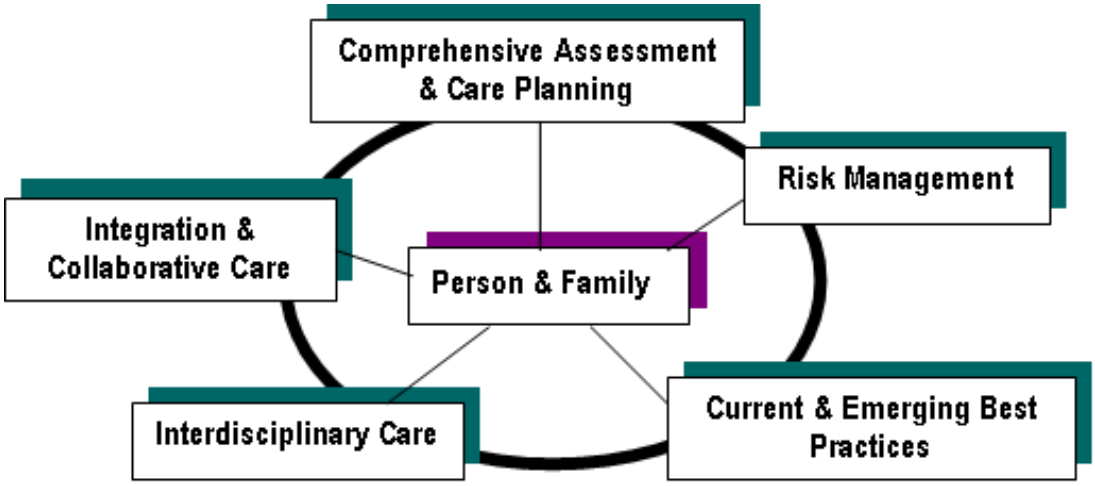
[2] MAPLe is derived from the RAI-HC only and not from the RAI 2.0

What is P.I.E.C.E.S.?

Putting the P.I.E.C.E.S.™ Together; A Model for Collaborative Care and Changing Practice provides:

- An approach to team solution-finding that can be used across sectors.
- A model conveying the individuality and importance of the various factors in the well-being, self-determination, and quality of life of the older person and his or her family.
- A 3-Question Assessment Template that guides the comprehensive and holistic assessment of the person through conversation between team members. This may happen informally during conversations that take place "In-The-Moment" -- in the hall, at the nursing station, with the person or family member. It may also happen more formally, for example, in a care conference.
    1. **P-I-E** represent a person's Physical, Intellectual and Emotional health
    2. **C** refers to Capabilities, to achieve the highest possible quality of life for the person
    3. **E-S** represent the person's Environment and their Social self (cultural, spiritual, life story)

Goals of P.I.E.C.E.S.



These five goals support the core value of the person and family and a comprehensive team approach to assessment and care planning, and in this way are very compatible with the RAI-MDS.

3-Question Assessment Template

Q 1 What has changed?

- Avoid assumptions; think atypical

Q 2 What are the RISKS and possible causes?

- Think P.I.E.C.E.S.

Q 3 What is the action?

- Interventions/Interactions/Information

The MDS-RAI provides a valuable reference base ensuring that only necessary additional assessments are completed.

- Triggered RAPs/CAPs may lead to the use of the 3-Q Assessment template by the care team.
- Acute changes in the person's status (between RAI assessments) may benefit from using the 3-Q. Assessment Template 'IN-THE-MOMENT' to identify risks and prioritize investigations and actions while the decision to complete a significant change assessment is being determined. Acute delirium is one example of a significant change requiring immediate action and care planning regardless of where the person is with respect to RAI-MDS assessment schedule.

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IV. RAI-MDS© and P.I.E.C.E.S. ™ Integration

The RAI-MDS and P.I.E.C.E.S. Assessment Framework both:

- Foster an interdisciplinary, person-centered approach to care;
- Facilitate the gathering of information needed to plan, implement and evaluate the effectiveness of interventions directed by the plan of care; and
- Facilitate appropriate referrals such as:
  - Referral to the P.I.E.C.E.S. Resource Staff team members;
  - Referral to the Psychogeriatric Resource Consultant (PRC);
  - Referral to other interdisciplinary partners such as Geriatric Psychiatry Outreach, Palliative Care and Pain Consultant, Stroke Strategy team, Alzheimer Society.

The RAI-MDS and P.I.E.C.E.S. Assessment Framework – How Do They Connect?

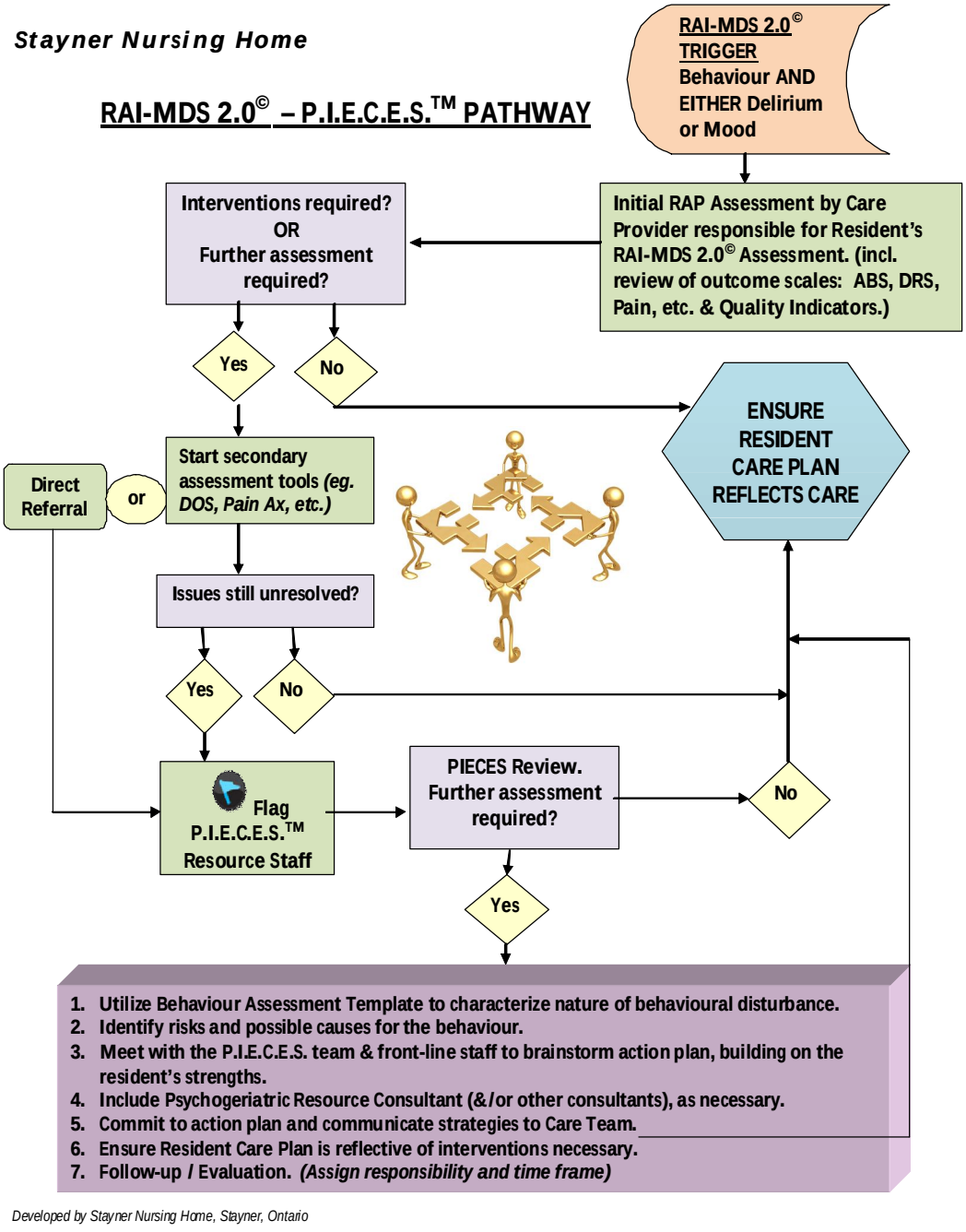
1) The most recent RAI-MDS assessment, the Assessment Protocols[3], and Outcome Measures provide evidence-based information to inform the P.I.E.C.E.S. assessment using the 3-Question Assessment Framework for those "IN-THE-MOMENT" situations that occur when a person is experiencing an acute change between RAI-MDS assessments.
   - "***What has changed***?" – What was the person's status on the most recent assessment? What's different now?
     i) *What tools would help us to describe this change?*
   - "***What are the RISKS and possible causes***?" – What were the risks identified on the most recent assessment? What are they now?
     i) *Use the P.I.E.C.E.S. Framework for the Team review to identify risks and causes*
   - "***What is the action***?" - What interventions/interaction strategies were in place to address a triggered CAP for the most recent assessment? Is there a need for changes in the intervention(s) and interaction strategies now?
     i) *Is a RAI-MDS Significant Change assessment warranted?*
2) If a person is experiencing an acute change situation, the P.I.E.C.E.S. Assessment Framework may assist in determining the need for a full RAI-MDS "Significant Change" assessment.
3) The P.I.E.C.E.S. Assessment Framework can be used to assist with care planning when Assessment Protocols are triggered during routine assessments (e.g., Delirium, Cognitive Loss, Behaviour , Mood and Pain Assessment Protocols).

[3] Assessment Protocols: Clinical Assessment Protocols were released by CIHI May 2008. Jurisdictions that have not implemented CAPs continue to use Resident Assessment Protocols (RAPs) for the RAI 2.0 and Client Assessment Protocols (CAPs) for the RAI-HC

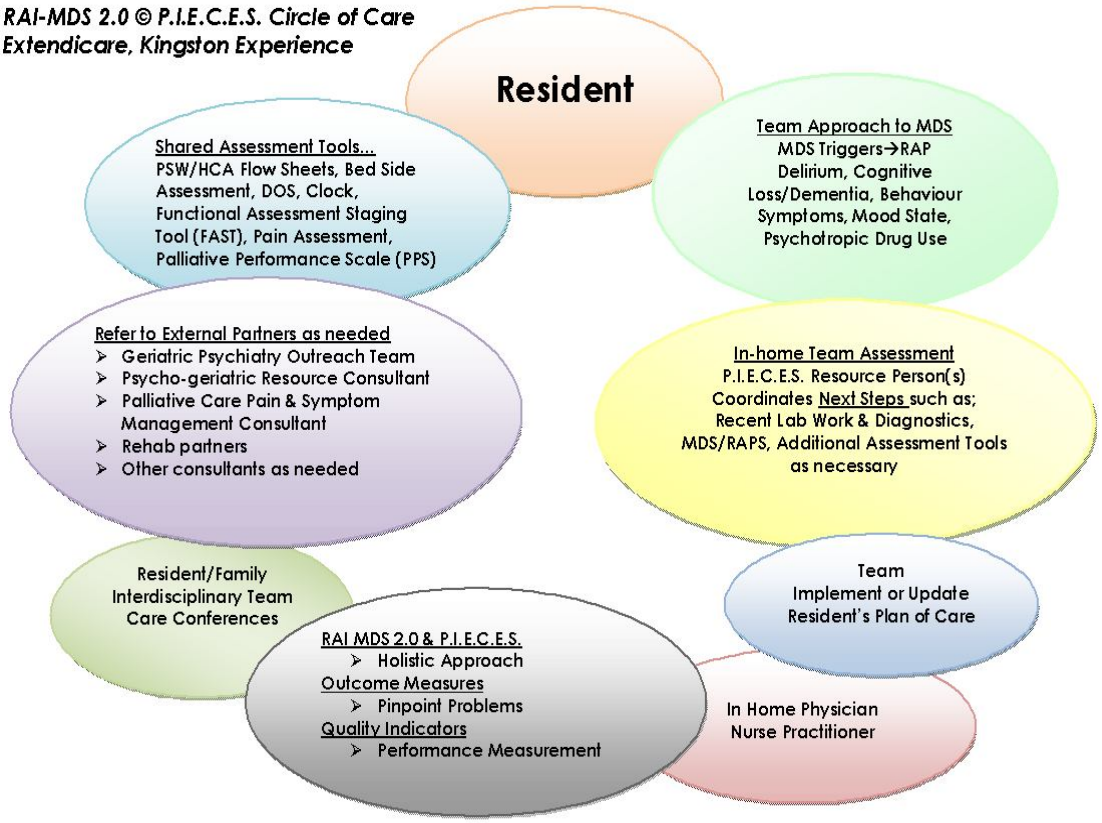
4) The completion of a RAI-MDS assessment may prompt the need for more specialized assessment using the P.I.E.C.E.S. Assessment Framework, referral to PRC, or other interdisciplinary partners.
5) Intervention(s) initiated as part of a P.I.E.C.E.S. referral can be evaluated by comparing the RAI-MDS Outcome Measures from the before and after intervention.

Remember …
Assessment is a step-by-step process that includes the person and his/her interdisciplinary 'Team'. Don't forget to draw on the valuable knowledge, skills and experience of the front-line care providers who often know the person best!

RAI-MDS and P.I.E.C.E.S. Integration Pathways (examples) The following 2 models/pathways, from Stayner Nursing Home and Extendicare Kingston, provide examples of P.I.E.C.E.S. and RAI integration. They may be adopted or customized to an organization's standards and policies for practice.



RAI-MDS 2.0 © P.I.E.C.E.S. Circle of Care
Extendicare, Kingston Experience



Assessments and Care Planning include observations by all interdisciplinary team members. This continuous step-by-step approach recognizes changes in a Resident's behaviour which triggers further team dialogue and evaluation.

Developed by Extendicare, Kingston, Kingston, Ontario

V. Suggested Reading

B. Chessworth, N. Curtin-Telegdi, D. Dalby, J. Hirdes, T. Kirchner, J. Poss, W. Procto, E. Tjam, *Minimum Data Set for Home Care (MDS-HC) Resident Assessment Instrument—Health Informatics Project (RAI-HIP) Example CCAC* (Waterloo, Ont.: University of Waterloo, 2001).

C.A. McCainey, P. Stolee, L.M. Hillier, D. Harris, P. Hamilton, K. Madsen, K. LeClair, "Evaluation of the Sustained Implementation of a mental health Learning Initiative in Long-Term Care." *International Psychogeriatrics* 19:5 (2007): pp. 842-858,

Canadian Collaborating Centre (for interRAI). *Outcome Measurement for the RAI-2.0*. Toronto: interRAI Dec. 2003)

Canadian Collaborating Centre (for interRAI), *Outcome Measurement for the RAI-Home Care (Version 2.0)*, (Toronto: interRAI, 2004).

interRAI, *RAI-Home Care (RAI-HC) Manual*, Canadian version, 2nd edition, (Ottawa: Canadian Institute for Health Information, 2002).

interRAI, Resident *Assessment Instrument (RAI) MDS 2.0 and RAPs Canadian Version User's Manual*, Second Edition, (Ottawa: Canadian Institute for Health Information, March 2005).

interRAI's Glossary of Frequently Used Terms: http://www.interrai.org/instruments/home_care.php

J. Hirdes, B. Fries, J. Norris, K. Steel, V. Mor, F. Dinnus, S. LaBine, C. Schalm, M. Stones, G. Teare, T. Smith, M. Marhaba, E. Perez, P. Jonsson, "Integrated Health Information Systems Based on the RAI/MDS Series of Instruments," *Healthcare Management Forum* 12, 4 (1999): pp. 30–40.

J. Morris, B. Fries, K. Steel, N. Ikegami, R. Bernabi, I. Carpenter, R. Gilgen, J. Hirdes, E. Topinková, "Comprehensive Clinical Assessment in Community Setting: Applicability of the MDS-HC," *Journal of American Geriatric Society* 45, 8 (1997): pp. 1017–1024.

N. Edwards, "Differentiating the Three D's: Delirium, Dementia and Depression," Medsurg Nursing Journal 12, 6 (2003): pp. 347–357.

Putting the P.I.E.C.E.S(™) Together; A Model for Collaborative Care and Changing Practice; A Learning Resource for Providers Caring for Older Adults with Complex Physical/Mental Health Needs and Behavioural Changes. 6th Edition (R), September 2008

P. Stolee, P, C.A. McCainey, L.M. Hillier, D. Harris, P. Hamilton, L. Kessler, V. Madsen, K. Le Clair, "Sustained Transfer of Knowledge to Practice in Long-Term Care: Facilitators and Barriers of a Mental Health Learning Initiative," *Gerontology & Geriatrics Education* 30:1 (2209): pp. 1-20.

APPENDICES

A. Glossary of Terms

ABS	Aggressive Behaviour Scale
ADL	Activities of Daily Living
CAPs	Clinical Assessment Protocols
CAPs (derived from the RAI-MDS-HC)	Client Assessment Protocols
CHESS	Changes in Health, End-stage Disease and Signs and Symptoms of medical problems
CPS	Cognitive Performance Scale
DRS	Depression Rating Scale
HC	Home Care
IADL	Instrumental Activities of Daily Living
interRAI PURS	interRAI Pressure Ulcer Risk Scale
MAPLe	Method for Assigning Priority Levels
MDS	Minimum Data Set
P.I.E.C.E.S.	Provides a systematic approach to the common issues, diagnosis and challenges of older persons at risk including those with aggressive behaviour; it offers a practical framework for assessment and supportive care strategies using a comprehensive interdisciplinary client-centred approach using the following domains: Physical, Intellectual, Emotional, Capability, Environment, Social.
PRC	Psychogeriatric Resource Consultant
Psychometric properties	Validity, Reliability, Responsiveness and Utility
QI	Quality Indicators
RAI	Resident Assessment Instrument
RAI 2.0	Resident Assessment Instrument 2.0 – assessment instrument used in Complex Continuing Care and LTC Homes
RAI-HC	Resident Assessment Instrument Home Care – assessment instrument used in Home Care
RAPs (derived from the RAI-MDS 2.0)	Resident Assessment Protocols
Reliability	Do you get the same answer independent of who is doing the assessment?
Responsiveness	The ability of the instrument to measure changes in health and social care outcomes or performance over time and across organizations.
RUG-III	Resource Utilization Groupers
U-FIRST!	The U-FIRST! Education Program is complimentary to the P.I.E.C.E.S. approach. It is designed for unregulated health care providers and their supervisors and recognizes the importance of ongoing, meaningful dialogue and shared solution finding. www.u-first.ca
Validity	Does the instrument measure what it purports to measure? Are the relevant concepts covered?

B. RAI-MDS and P.I.E.C.E.S. Integration Job Aid

The information captured in the Resident Assessment Instrument-Minimum Data Set (RAI-MDS) and the (P.I.E.C.E.S.) (Physical, Intellectual, Emotional, Capabilities, Environment, Social) Framework can be integrated to enhance the person's and his/her TEAM care planning process and eliminate unnecessary assessment duplication.

RAI-MDS© and P.I.E.C.E.S.™ Integration

The RAI-MDS and the P.I.E.C.E.S. Framework both:

- ✓ Foster an interdisciplinary, person-centered approach to care;
- ✓ Are grounded in the principles of seeking effective intervention and evaluation for care planning; and
- ✓ Facilitate appropriate referrals such as:
  - Referral to the P.I.E.C.E.S. Resource Staff team members;
  - Referral to the PRC;
  - Referral to other interdisciplinary partners such as Psychogeriatric Outreach; Palliative Care, Pain Consultant; Stroke Strategy team,rehabilitation partners, Alzheimer Society

The RAI-MDS and P.I.E.C.E.S. Framework – How Do They Connect?

1. The most recent RAI-MDS assessment, the CAPs[4], and Outcome Measures provide evidence-based information to inform the P.I.E.C.E.S. 3-Question Assessment Framework for those "IN- the MOMENT" situations that occur when a person is experiencing an acute change between RAI-MDS assessments.

i) "What has changed?" What was the person's status on the most recent assessment? What's different now?

ii) "What are the RISKS and possible causes?" What were the risks identified on the most recent assessment? What are they now?

iii) "What is the action?" What interventions were in place to address a triggered CAP for the most recent assessment? Is there a need for changes in the intervention(s) now?

[4] Clinical Assessment Protocols were released by CIHI May 2008. Jurisdictions that have not implemented CAPs may continue to use Resident Assessment Protocols (RAPs) for the RAI 2.0 and Client Assessment Protocols (CAPs) for the RAI-HC

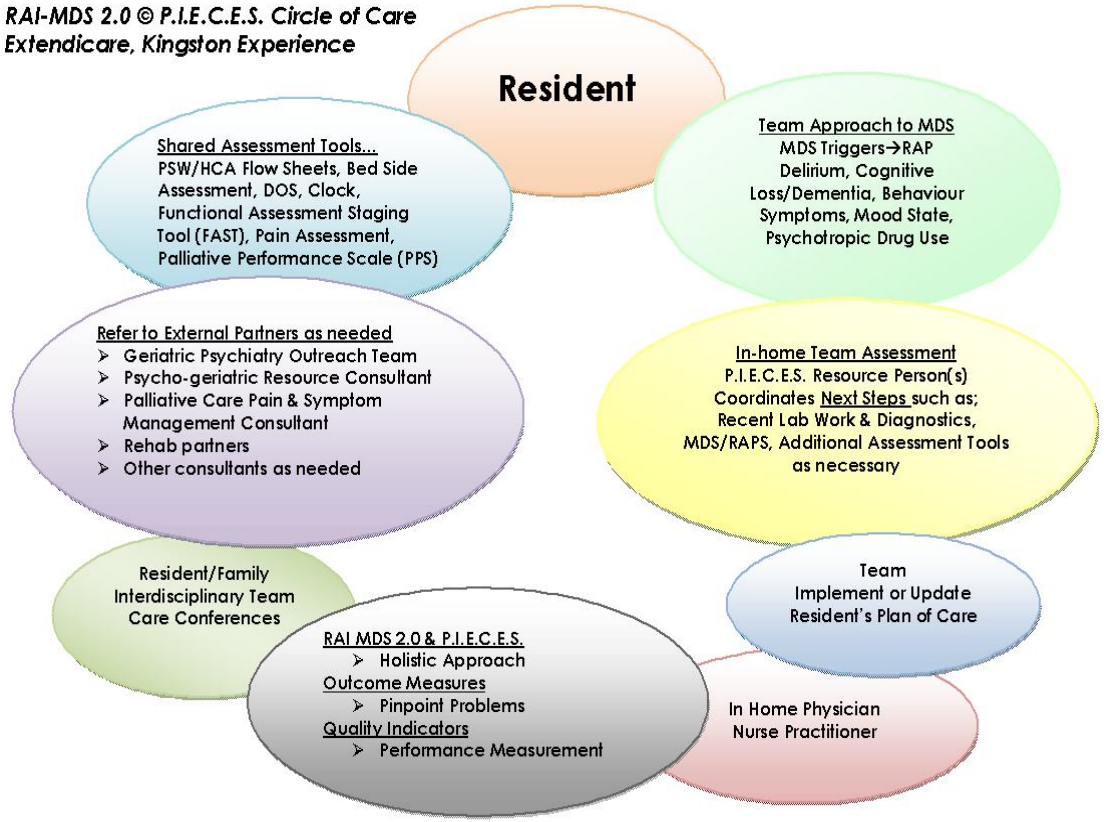
2. If a person is experiencing an acute change situation, the P.I.E.C.E.S. Assessment Framework may assist in addressing the care needs "IN-the-MOMENT" and determining the need for a full RAI-MDS "Significant Change" assessment.

3. The P.I.E.C.E.S. Assessment Framework can be used to assist with care planning when CAPs are triggered (e.g., Delirium, Cognitive Loss, Behaviour, Mood, and Pain) during routine assessments.

4. The completion of a RAI-MDS assessment may prompt the need for more specialized assessment using the P.I.E.C.E.S. Assessment Framework and/or referral to PRC or other interdisciplinary partners.

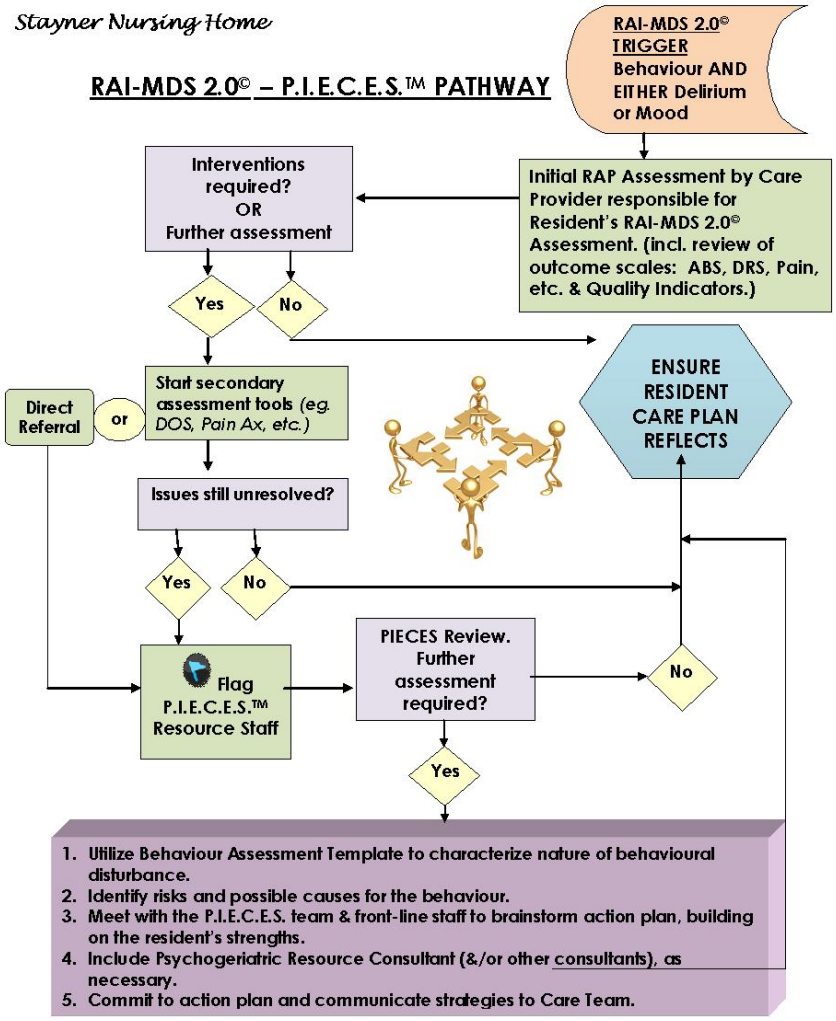
5. Intervention(s) initiated as part of a P.I.E.C.E.S. assessment and team discussions can be evaluated by comparing the RAI-MDS Outcome Measures before and after intervention.

Two models that provide examples of P.I.E.C.E.S. and RAI integration are shown on the flip side of this page. They may be adopted or customized to an organization's standards and policies for practice.



Assessments and Care Planning include observations by all interdisciplinary team members. This continuous step-by-step approach recognizes changes in a Resident's behaviour which triggers further team dialogue and evaluation.

Developed by Extendicare, Kingston, Kingston, Ontario



Developed by Stayner Nursing Home, Stayner, Ontario

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C. RAI-MDS 2.0 – Outcome Measures

January 2010

Job Aid: RAI-MDS 2.0 Outcome Scales

Outcome Scales	Description	RAI-MDS 2.0 Assessment Items	Score Range
DRS Depression Rating Scale	This scale can be used as a clinical screen for depression. Validated against the Hamilton Depression Rating Scale (HDRS), the Cornell Scale for Depression in Dementia (CSDD) and the Calgary Depression Scale (CDS).	Seven Depression Rating Scale items • Negative Statements (E1a) • Persistent Anger (E1d) • Expression of Unrealistic Fears (E1f) • Repetitive Health Complaints (E1h) • Repetitive Anxious Complaints (E1i) • Sad, Pained, Worried Fa cial Expression (E1l) • Crying, Tearfulness (E1m)	0–14 A score of 3 or more may indicate a potential or actual problem with depression.
CHESS Changes in Health, End-Stage Disease and Signs and Symptoms	This scale detects frailty and health instability and was designed to identify residents at risk of serious decline.	Nine CHESS items • Decline in Cognition (B6) • Decline in ADL (G9) • Dehydration (J1c) • Edema (J1g) • Shortness of Breath (J1l) • Vomiting (J1o) • End-Stage Disease (J5c) • Weight Loss (K3a) • Leaving Food Uneaten (K4c)	0–5 Higher scores indicate higher levels of medical complexity and are associated with adverse outcomes, such as mortality, hospitalization, pain, caregiver stress and poor self-rated health.
Pain Scale	This scale summarizes the presence and intensity of pain. This scale validates well against the Visual Analogue Scale.	Two Pain Scale items • Frequency of Pain (J2a) • Intensity of Pain (J2b)	0–3 Higher scores indicate a more severe pain experience.
ADL* Self-Performance Hierarchy Scale * Activities of Daily Living	This scale reflects the disablement process by grouping ADL performance levels into discrete stages of loss (that is early loss: personal hygiene; middle loss; toileting and locomotion; late loss; eating)	Four ADL Self-Performance Hierarchy Scale items • Personal Hygiene (G1jA) • Toilet Use (G1iA) • Locomotion (G1eA) • Eating (G1hA)	0–6 Higher scores indicate greater decline (progressive loss) in ADL performance.
ADL Short Form	This scale provides a measure of the resident's ADL self-performance status based on items that reflect stages of loss (early, middle and late loss).	Four ADL Short Form items • Personal Hygiene (G1jA) • Toilet Use (G1iA) • Locomotion (G1eA) • Eating (G1hA)	0–16 Higher scores indicate more impairment of self-sufficiency in ADL performance.
ADL Long Form	This scale provides a measure of the resident's ability to perform ADLs. The ADL Long Form is more sensitive to clinical changes than the other ADL scales.	Seven ADL Long Form items • Mobility in Bed (G1aA) • Transfers (G1bA) • Locomotion (G1eA) • Dressing (G1gA) • Eating (G1hA) • Toilet Use (G1iA) • Personal Hygiene (G1jA)	0–28 Higher scores indicate more impairment of self-sufficiency in ADL performance.

Continued

Job Aid: RAI-MDS 2.0 Outcome Scales (Continued)

<table>
<tr><th>Outcome Scales</th><th>Description</th><th>RAI-MDS 2.0 Assessment Items</th><th>Score Range</th></tr>
<tr><td>ISE
Index of Social Engagement</td><td>This scale describes the resident's sense of initiative and social involvement within the facility.</td><td>Six Index of Social Engagement items
• At Ease Interacting With Others (F1a)
• At Ease Doing Planned or Structured Activities (F1b)
• At Ease Doing Self-Initiated Activities (F1c)
• Establishes Own Goals (F1d)
• Pursues Involvement in the Life of the Facility (F1e)
• Accepts Invitations Into Most Group Activities (F1f)</td><td>0–6
Higher scores indicate a higher level of social engagement.

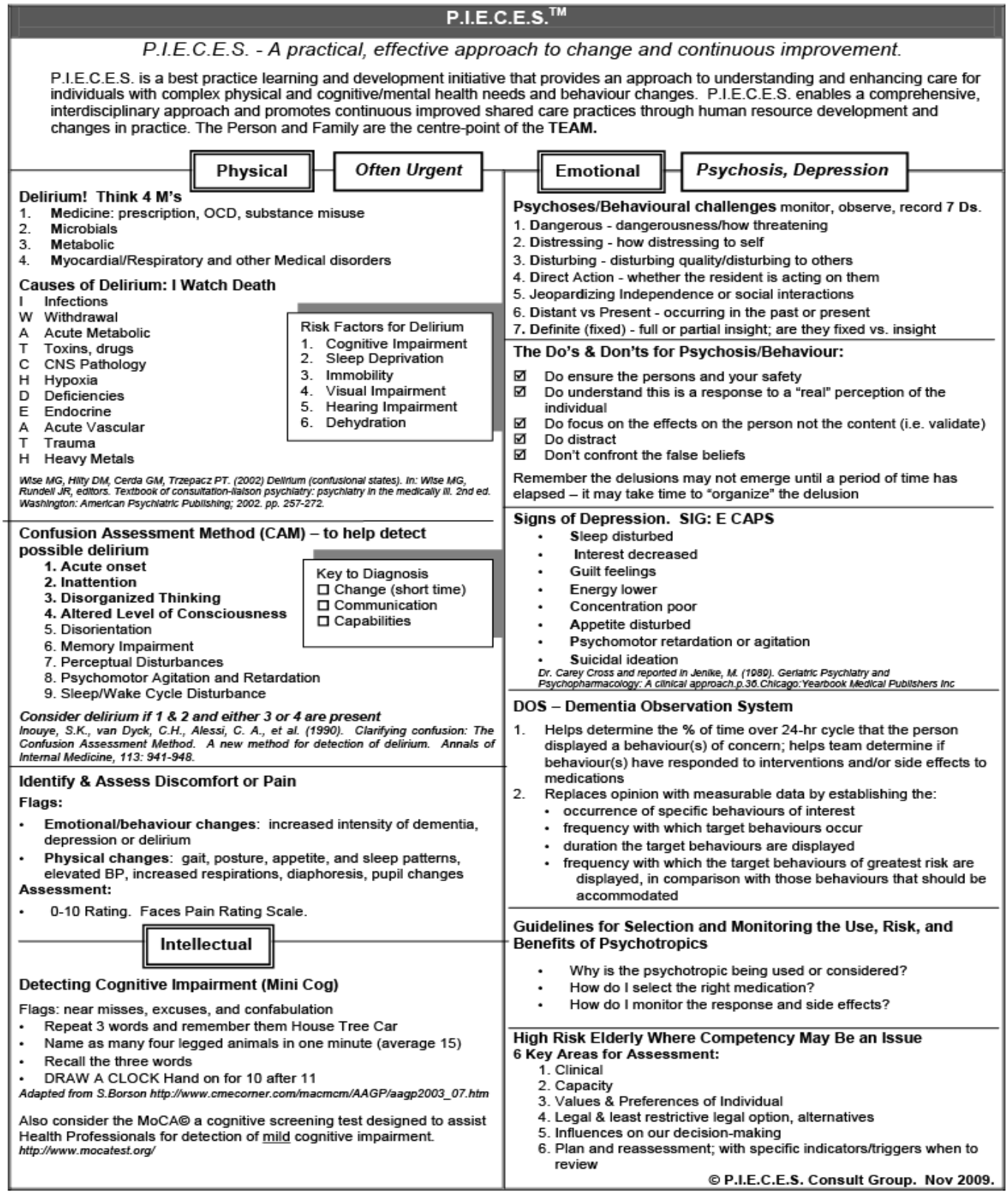
Note: unlike other interRAI scales, higher scores on the ISE are a good thing.</td></tr>
<tr><td>ABS
Aggressive Behaviour Scale</td><td>This scale provides a measure of aggressive behaviour.
The ABS is highly correlated with the Cohen Mansfield Agitation Inventory (CMAI) Aggression Subscale.</td><td>Four Aggressive Behaviour Scale items
• Verbally Abusive (E4b)
• Physically Abusive (E4c)
• Socially Inappropriate/Di sruptive Behaviour (E4d)
• Resists Care (E4e)</td><td>0–12
Higher scores indicate higher levels of aggressive behaviour.</td></tr>
<tr><td>interRAI PURS
Pressure Ulcer Risk Scale</td><td>This scale differentiates risk for developing pressure ulcers.</td><td>Seven interRAI Pressure Ulcer Risk Scale items
• Bed Mobility Self-P erformance (G1aA)
• Walk in Room Self-Performance (G1cA)
• Bowel Incontinence (H1a)
• Shortness of Breath (J1l)
• Daily Pain (J2a)
• Weight Loss (K3)
• History of Resolved Ulcer (M3)</td><td>0–8
Higher scores indicate a higher relative risk for developing a pressure ulcer.</td></tr>
<tr><td>CPS
Cognitive Performance Scale</td><td>This scale describes the cognitive status of a resident.

Validated against the Mini-Mental State Examination (MMSE) and the Test for Severe Impairment (TSI).

The chart illustrates how the RAI-MDS 2.0 CPS scores relate to the MMSE scores.

<table><tr><th>CPS Score</th><th>Description</th><th>MMSE Equivalent Average</th></tr><tr><td>0</td><td>Intact</td><td>25</td></tr><tr><td>1</td><td>Borderline Intact</td><td>22</td></tr><tr><td>2</td><td>Mild Impairment</td><td>19</td></tr><tr><td>3</td><td>Moderate Impairment</td><td>15</td></tr><tr><td>4</td><td>Moderate/Severe Impairment</td><td>7</td></tr><tr><td>5</td><td>Severe Impairment</td><td>5</td></tr><tr><td>6</td><td>Very Severe Impairment</td><td>1</td></tr></table></td><td>Five Cognitive Performance Scale items
• Comatose (B1)
• Short-Term Memory (B2a)
• Cognition Skills for Daily Decision-Making (B4)
• Expressive Communication (C4)
• Eating (G1hA)</td><td>0–6
Higher scores indicate more severe cognitive impairment.</td></tr>
</table>

D. P.I.E.C.E.S. Framework Job Aid:



P.I.E.C.E.S.™

P.I.E.C.E.S. - A practical, effective approach to change and continuous improvement.

P.I.E.C.E.S. is a best practice learning and development initiative that provides an approach to understanding and enhancing care for individuals with complex physical and cognitive/mental health needs and behaviour changes. P.I.E.C.E.S. enables a comprehensive, interdisciplinary approach and promotes continuous improved shared care practices through human resource development and changes in practice. The Person and Family are the centre-point of the **TEAM.**

Physical — *Often Urgent*

Delirium! Think 4 M's

1. **M**edicine: prescription, OCD, substance misuse
2. **M**icrobials
3. **M**etabolic
4. **M**yocardial/Respiratory and other Medical disorders

Causes of Delirium: I Watch Death

I Infections
W Withdrawal
A Acute Metabolic
T Toxins, drugs
C CNS Pathology
H Hypoxia
D Deficiencies
E Endocrine
A Acute Vascular
T Trauma
H Heavy Metals

Risk Factors for Delirium
1. Cognitive Impairment
2. Sleep Deprivation
3. Immobility
4. Visual Impairment
5. Hearing Impairment
6. Dehydration

Wise MG, Hilty DM, Cerda GM, Trzepacz PT. (2002) Delirium (confusional states). In: Wise MG, Rundell JR, editors. Textbook of consultation-liaison psychiatry: psychiatry in the medically ill. 2nd ed. Washington: American Psychiatric Publishing; 2002. pp. 257-272.

Confusion Assessment Method (CAM) – to help detect possible delirium

1. Acute onset
2. Inattention
3. Disorganized Thinking
4. Altered Level of Consciousness
5. Disorientation
6. Memory Impairment
7. Perceptual Disturbances
8. Psychomotor Agitation and Retardation
9. Sleep/Wake Cycle Disturbance

Key to Diagnosis
☐ Change (short time)
☐ Communication
☐ Capabilities

Consider delirium if 1 & 2 and either 3 or 4 are present
Inouye, S.K., van Dyck, C.H., Alessi, C. A., et al. (1990). Clarifying confusion: The Confusion Assessment Method. A new method for detection of delirium. Annals of Internal Medicine, 113: 941-948.

Identify & Assess Discomfort or Pain

Flags:

- **Emotional/behaviour changes**: increased intensity of dementia, depression or delirium
- **Physical changes**: gait, posture, appetite, and sleep patterns, elevated BP, increased respirations, diaphoresis, pupil changes

Assessment:

- 0-10 Rating. Faces Pain Rating Scale.

Intellectual

Detecting Cognitive Impairment (Mini Cog)

Flags: near misses, excuses, and confabulation

- Repeat 3 words and remember them House Tree Car
- Name as many four legged animals in one minute (average 15)
- Recall the three words
- DRAW A CLOCK Hand on for 10 after 11

Adapted from S.Borson http://www.cmecorner.com/macmcm/AAGP/aagp2003_07.htm

Also consider the MoCA© a cognitive screening test designed to assist Health Professionals for detection of mild cognitive impairment.
http://www.mocatest.org/

Emotional — *Psychosis, Depression*

Psychoses/Behavioural challenges monitor, observe, record **7 Ds**.

1. **D**angerous - dangerousness/how threatening
2. **D**istressing - how distressing to self
3. **D**isturbing - disturbing quality/disturbing to others
4. **D**irect Action - whether the resident is acting on them
5. Jeopar**d**izing Independence or social interactions
6. **D**istant vs Present - occurring in the past or present
7. **D**efinite (fixed) - full or partial insight; are they fixed vs. insight

The Do's & Don'ts for Psychosis/Behaviour:

☑ Do ensure the persons and your safety
☑ Do understand this is a response to a "real" perception of the individual
☑ Do focus on the effects on the person not the content (i.e. validate)
☑ Do distract
☑ Don't confront the false beliefs

Remember the delusions may not emerge until a period of time has elapsed – it may take time to "organize" the delusion

Signs of Depression. SIG: E CAPS

- **S**leep disturbed
- **I**nterest decreased
- **G**uilt feelings
- **E**nergy lower
- **C**oncentration poor
- **A**ppetite disturbed
- **P**sychomotor retardation or agitation
- **S**uicidal ideation

Dr. Carey Cross and reported in Jenike, M. (1989). Geriatric Psychiatry and Psychopharmacology: A clinical approach.p.36.Chicago:Yearbook Medical Publishers Inc

DOS – Dementia Observation System

1. Helps determine the % of time over 24-hr cycle that the person displayed a behaviour(s) of concern; helps team determine if behaviour(s) have responded to interventions and/or side effects to medications
2. Replaces opinion with measurable data by establishing the:
   - occurrence of specific behaviours of interest
   - frequency with which target behaviours occur
   - duration the target behaviours are displayed
   - frequency with which the target behaviours of greatest risk are displayed, in comparison with those behaviours that should be accommodated

Guidelines for Selection and Monitoring the Use, Risk, and Benefits of Psychotropics

- Why is the psychotropic being used or considered?
- How do I select the right medication?
- How do I monitor the response and side effects?

High Risk Elderly Where Competency May Be an Issue

6 Key Areas for Assessment:

1. Clinical
2. Capacity
3. Values & Preferences of Individual
4. Legal & least restrictive legal option, alternatives
5. Influences on our decision-making
6. Plan and reassessment; with specific indicators/triggers when to review

The P.I.E.C.E.S. 3-QuestionTemplate

*" A proven strategy for the **Person and Family's Team** in collaboration and shared solution-finding"*

The **P.I.E.C.E.S.** holistic approach to understanding the meaning behind a person's behaviour comes from considering the person's; **P**hysical, **E**motional, and **I**ntellectual health, supportive strategies to maximize **C**apabilities, the individual's social and physical **E**nvironment, and his/her **S**ocial self (cultural, spiritual, Life Story). P.I.E.C.E.S. provides a shared understanding of the often multiple causes and associated risks so that care planning recognizes areas of need & builds on the person's remaining strengths. The person and family are the centre-point of every **TEAM**.

The 3-question template:

- Guides the systematic, comprehensive **TEAM** approach that helps make the best use of everyone's energy and resources.
- Easily integrates into day-to-day individual and **TEAM** assessment process.
- Shapes **TEAM** conversation, both in-the-moment and more formal dialogue; asking questions prevents jumping to solutions too quickly.
- Produces the **TEAM's** shared understanding of, and contribution to the care plan.
- Encourages individual and **TEAM** reflective thinking.

TEAM collaboration and shared solution-finding requires:

- Committing to the P.I.E.C.E.S. approach that places the person and family at the centre of every **TEAM**.
- Being present in conversations, validating all observations and concerns, and acknowledging unique contributions of **TEAM** members.
- Understanding the factors that support better performance (e.g. information, resources, incentives, knowledge and skills.
- Focusing efforts on the gap between current & better practices; seeks solutions that build staff capacity rather than laying blame.

▶ **Q. 1 What has changed?**

▶ **Q. 2 What are the RISKS and possible causes?**

▶ **Q. 3 What is the action ?**

Question	TEAM Assessment Framework, Guidelines, and Tools
Q. 1: What has changed?	**Avoid assumptions! Always ask, what has changed?** • Determine if the problem/behaviour represents a change. • Is the problem/behaviour new? If so, in what way and when did the change emerge? • Did the problem/behaviour already exist? If so, is it worse or different, and when did the change emerge? • Is the problem/behaviour long-standing and unchanged? If so, what else could have changed, for example, caregiver stress? **Remember to think atypical!** Atypical presentations are very common in older persons.
Q.2: What are the RISKS and possible causes?	**1. Identify the RISKS and avoid assumptions!** • **Is there a risk?** And if so for whom? Person, other individuals, staff, family, visitors • **What is the risk?** Remember the types of risks by using the acronym RISKS: **R** Roaming (wandering) **I** Imminent physical; risk of harm - frailty (e.g. delirium), falls, fire, firearms **S** Suicide Ideation **K** Kinship Relationships (risk of harm by the older person or to the older person by others that includes avoidance of the person) **S** Self-neglect, safe driving, and substance abuse • **What is the degree of risk?** How imminent is the risk? Is the risk increasing? • **Remember!** For any intervention, consider both the potential risks and potential benefits. Be vigilant and carefully observe and assess the individual's capacity to understand. **2. Remember, consider atypical presentation!** Use **P.I.E.C.E.S.** to identify possible causes: **Physical** 5 D's: Delirium, Disease, Drugs, Discomfort, Disability **Intellectual** 7 A's: Amnesia, Aphasia, Apathy, Agnosia, Apraxia, Anosognosia, Altered Perception **Emotional** 4 D's: Disorder Adjustment, Disorders of Mood, Delusional, Disorders of Personality **Capabilities** ADL's, IADL's **Environment** Consider: over/under stimulation, relocation, change in routine, noise, lighting, colours **Social** Consider: social network, life story, cultural heritage **3. Remember, all behaviour has meaning!** Use "P.I.E.C.E.S." to help you remember!
Q. 3: What is the Action?	**1. Use the 3 "I"s – Interventions, Interactions, and Information** to guide action. **Intervention:** What therapeutic approach, both nonpharmacological and pharmacological, may best address the person's needs? What other investigations need to be undertaken? Use P.I.E.C.E.S.! **Interaction:** Using what has **changed** and understanding of **causes** for interaction at bedside. **Information:** Think P.I.E.C.E.S.! What information should be shared with other team members, family, if the person is moved or requires transfer? How is the information shared? What are RISKS Factors? **2. Promote** dialogue and shared **TEAM** solution-finding.

E. Case Studies

Case Study - Extendicare, Kingston 'Circle of Care' Pathway

Connecting the RAI-MDS and P.I.E.C.E.S. Framework

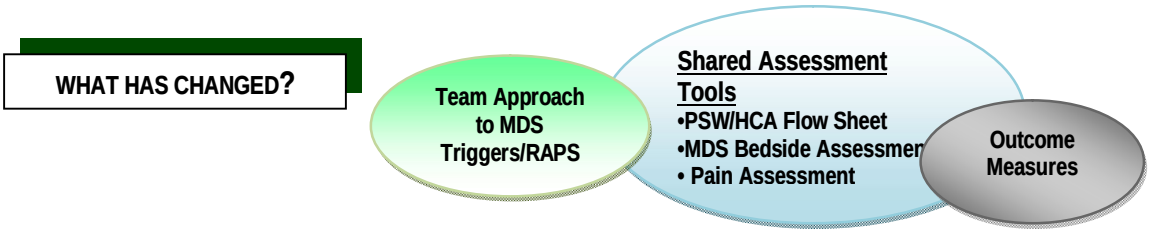
Please note: The resident's name and identifying characteristics have been changed to maintain privacy.

MAGGIE O'SHEA - 72 YEARS OF AGE

Diagnoses: Query Parkinson's disease, Prominent Benign Essential Tremors, and Pernicious Anemia. Maggie has resided at Extendicare for several years. She likes to keep busy. She has always worked and continues to do things around the home. During the summer months she is an avid gardener and takes a lot of pride in this. Maggie is very caring. She often assists residents to meals and activities. If a resident is cold she will go and get them a sweater. Maggie gets a sense of purpose and belonging when she helps. Her level of activity depends on the severity of her tremors.

Medications: Levocarb, Requip, Amantadine, Lorazepam, Oxazepam, Propranolol, and Vit B12. **[Med Changes]** Cogentin was recently discontinued. Seroquel was implemented (see below).
A neurology consult is pending.

Annual Full Assessment



Delirium (new)

- This RAP was triggered because of **B6 2 Change in Cognitive Status - Deteriorated [This is a change]**

  There is evidence of short term memory loss. Maggie was unable to recall the 3 words after 5 minutes. She had no difficulty with word recall on the previous quarterly assessment. Her long term

memory appears intact. **Cognitive Performance Scale is 1/6** (borderline intact); previous assessment 0/6. (intact)

Cognitive Loss/Dementia

- This RAP was triggered because of **B2-1 Short Term Memory Problem**. (refer to above)

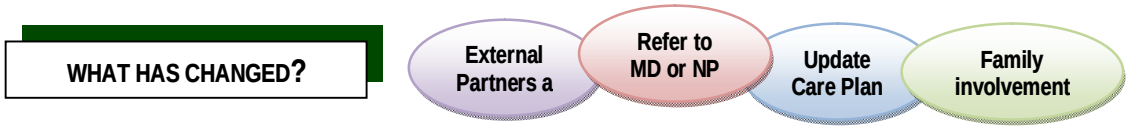
Mood State

- This RAP was triggered because of **E1d Persistent Anger with self and others. [This is a change]** During this assessment period, Maggie has been increasingly angry with both staff & residents. Staff stated that she gets really upset if other residents are "not doing" what she thinks they should be doing. Nursing notes indicate that she “blows up” over little things, such as having her vital signs taken. Although she has always had a temper these angry outbursts have escalated. At times she will throw what ever is within reach, especially when her requests are not met immediately. **Index of Social Engagement is 3/6**, this is unchanged from previous assessment.

- **E1k Insomnia** Maggie states she doesn’t sleep too long. She takes sedation at bedtime but has always been a very early riser. In gardening season it has been difficult to keep her inside as she likes to get an early start; often as early as 4am.

  E1l Sad, pained, worried expression It is difficult to tell if this is a Parkinson’s mask or if she is worried about something. She doesn’t complain and will put on a happy face when she sees staff. She scored **0/3** on the **PAIN Scale**. This remains unchanged.

  E2 Mood Indicators present easily altered Her outbursts are usually short-lived. She scored **3/14** on the **Depression Rating Scale** compared to **1/14** from the last assessment. **Aggressive Behaviour Scale** remains unchanged at **0/12.**



The MDS assessor referred Maggie to the **In Home Physician** due to **changes in her cognition and an increase in falls** (4 falls in the past 30 days & 2 other falls occurred in the past 31-180 days). Her 2 sons have both been notified of these changes. Both **sons and their wives** are devoted to Maggie. One son lives close by and he and his wife often take Maggie to church but have been unable to do so lately because she is so shaky. All falls seem to be due to her unsteady gait related to an increase in tremors. Her gait appears to have deteriorated since previous assessment. Maggie continues to walk at a fast pace despite ongoing

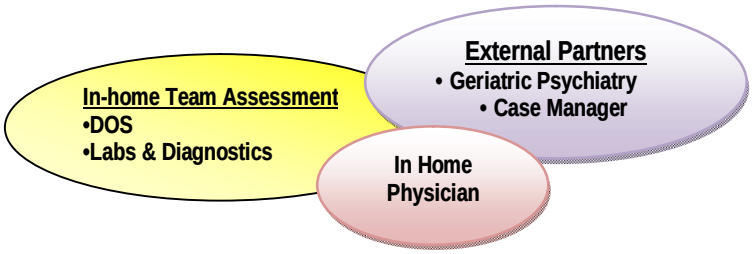
reminders from staff to slow down. She has refused to use a walker or even discuss it. The **Physiotherapist** has assessed Maggie using the MDS. Changes reflected on **Care Plan**.

WHAT HAS CHANGED?

WHAT ARE THE RISKS?

Maggie was treated for pneumonia just prior to her annual MDS assessment. She was retreated a few weeks later due to "crackles in both lungs". During this second course of treatment she exhibited signs of an **acute delirium**. She was experiencing distressing visual hallucinations such as bugs in her drinks, rats in the cupboards of another room and she saw snakes crawling everywhere. She was found standing beside her roommate's bed, steak knife in hand, in the middle of the night. Staff stated that Maggie told them that she wanted to open her roommate's safe because she thought there was a gun in the safe. The next day she denied any harmful intent. Maggie said she was never going to hurt her roommate and that she was only trying to get the big snakes. She continued to see snakes. She described them as dangling from the light over her bed, both big ones and little ones and made sweeping motions across her bed to 'remove' them.

WHAT IS THE ACTION?



Maggie's room was cleared of all potential items that could cause harm to her or others. Her call bell was long and hung over the top of the bed, across her pillow. According to Maggie it was one of the big snakes and it was hard to kill. This was replaced with a shorter one. Anything that resembled a snake to Maggie was cleared away.

In-home P.I.E.C.E.S. Resource Person implemented a DOS, and contacted the **Case Manager** of the **Geriatric Psychiatry Outreach Team** for an urgent referral. This included copies of the **previous 2 MDS Assessments and Outcome Measures** to help determine the underlying risk factors and those that required immediate attention.

The **Case Manager** conferred with a **Geriatric Psychiatrist** who suggested investigations to rule out underlying physical problems and in the interim to use a small dose of Seroquil to help with the hallucinations. (This was on a Friday afternoon).

The plan for the weekend was to continue to monitor closely and call the **In Home Physician** if there were any significant changes.

WHAT IS THE ACTION?

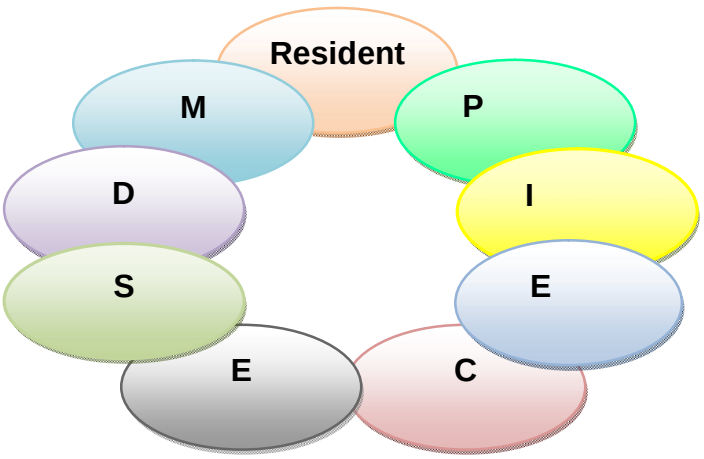
Geriatric Psychiatry

PSW/HCA Flow Sheets

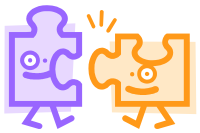
Early the following week the **Case Manager** from of the **Geriatric Psychiatry Outreach Team** met with the Nursing Team. (Registered Staff and PSW's/HCA's) She reviewed Maggie's chart and **PSW/HCA Flow Sheets.** The flow sheets contain valuable clinical information from the front line staff. These are a good starting point for other tools such as the DOS. Over the next couple of weeks the hallucinations became less distressing to Maggie. The incident with the knife was an isolated event.

The **Case Manager** interviewed Maggie the following week. She agreed that she was still seeing snakes but staff indicated that she was less agitated then before. Maggie denied hearing voices. She stated she was happy to be alive and had no thoughts of dying. She was unable to complete a MMSE due to tremors and speech impediment but knew the date and the season. She knew where she was but could not recall three words. She couldn't draw the clock but pointed to where the numbers should go and placed the hands correctly.

The **Geriatric Psychiatrist** assessed Maggie two weeks later. Diagnostically he believed that the acute delirium was related to her high dopinergic load, with the sentinel event being the pneumonia. The delirium and hallucinations were resolving and they were no longer dangerous, distressing or disturbing. He suggested some further investigations and medication changes. Maggie continued to be followed by the **Geriatric Psychiatry Outreach Team** but was discharged from their service approximately 3 months later. Maggie continued to improve. She managed to tend to her garden all summer long and did agree to a walker, providing it was "Kelly Green."



Case Study - Stayner Nursing Home

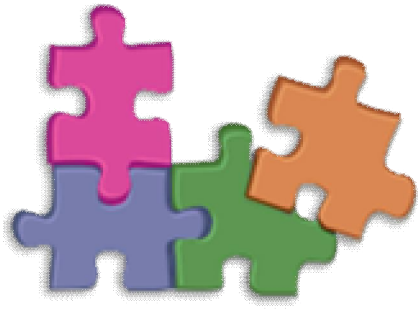


P.I.E.C.E.S.™ & RAI MDS 2.0© COLLABORATION

MRS. C – 87 YEARS OF AGE

- Community RAI-HC completed in January. Mrs. C. had triggered Communication, ADL, Cardio, Pain, & Urinary Incontinence CAPs at that time. MAPLe score was Moderate. CPS=0, DRS=0, CHESS=1, ADL=0, PAIN =2. Had been admitted to hospital mid-March with pneumonia, hypoglycemia, UTI, numerous open areas on buttocks, decreased mobility. Hospital records indicate Mrs. C. was total care for bathing & toileting, requiring 1 person and walker for ambulation of short distances.
- Mrs. C. was admitted to nursing home, from hospital, in late March 2008. She was referred for P.I.E.C.E.S™ assessment on April 1st even before completion of the initial RAI assessment due to verbal repetitiveness, attention seeking, and pain.
- P.I.E.C.E.S™ staff completed an initial plan until RAI MDS scores completed.
- Initial MDS assessment (ARD April 3rd): Resident triggered the following RAPS – Cognitive Loss, Visual Function, Communication, ADL Rehab, Urinary Incontinence, Mood, Behavioural Symptoms, Nutritional Status, Dehydration, Pressure Ulcer, and Psychotropic Med use.
- Outcome scores from initial assessment: CPS=3, DRS=3, COM=2, PAIN=2, CHESS=0, ISE=2,ADL SHORT=13
- Following MDS assessment, P.I.E.C.E.S™ staff began secondary MMSE assessment in April.
- May 28th P.I.E.C.E.S™ staff note some improvement with sleep but demanding behaviours still apparent. Resident indicates requests for attention related to "nothing to do" – staff note that when resident is fully engaged in activities, the attention seeking does decrease.
- DOS charting begun June 2008. Some reduction in behaviours noted. P.I.E.C.E.S™ plans to monitor DRS score on upcoming MDS assessment.
- Quarterly MDS assessment completed July 2008 – DRS score increased to 4, PAIN score decreased to 1, ISE score improved to 4 and ADL Short score improved to 8. RAPS that changed: Cognitive/Dementia, Communication, Mood. Mood RAP changed due to increased repetitive questions (E1b) and increased repetitive anxious complaints/concerns non-health related. **Psychosocial Well-being RAP** was newly triggered on this assessment.
- P.I.E.C.E.S™ staff did a secondary Depression in Dementia assessment – findings were insignificant.
- PI.E.C.E.S™ staff flagged physician to consider a trial of medication to alleviate resident's mood.

- In August, behaviours increasing once again, with sleep patterns disrupted. Physician ordered trial of Celexa.
- Mid September, resident complaints of pain are increased and sleep pattern still disrupted – calling out frequently through the night. Duragesic pain patch dosage had been decreased. Zyprexa had been put on hold earlier in the month due to drowsiness – staff questioned if needing to be restarted.
- Quarterly assessment completed October: DRS increased to 6, Pain stable at 1, ISE decreased to 3, ADL Short stable at 8.
- P.I.E.C.E.S™ staff makes recommendations to physician following October assessment – physician hesitant to change medication regime.
- Physician increases Celexa in December and orders acetaminophen and hot packs for complaints of leg pain.
- Quarterly assessment in January 2009 – DRS decreased to 5 however PAIN increased to 2. ISE decreased to 2.
- DOS implemented once again Jan.22nd to 28th. Data incomplete. Another DOS commenced for Jan.29th to Feb. 4th.
- DOS (Jan 29th – Feb. 4th). Showed decreased complaints but still present during care.
- March 4th – P.I.E.C.E.S™ referral received for increased pain. Referred to physiotherapist who questioned the need for x-ray and referral made to Community Pain & Symptom Resource Specialist.
- March 11th – x-ray ordered/physio assessment completed. No walking as per physio's report. X-ray revealed vascular necrosis, and query for metastasis in hips.
- March 20th – Pain assessment ordered and completed March 23rd. Order for Tylenol #3.
- March 25th – Referral made to orthopedic surgeon/ awaiting appointment.
- March 30th – Emesis, increased temp, GI upset. Query UTI or reaction to Tylenol #3. DRS=5 PAIN=2 (From January MDS – due again April).
- April 2009 -- significant deterioration in condition. Pain & Symptom Resource Specialist in and recommendations made. Refusing food, fluid and medication. Palliative status – palliative interventions commenced.



F. Testimonials

The RAI-MDS & P.I.E.C.E.S. Integration Job Aid was introduced to professionals in the LTC homes. Here is what they said:

- The job aid appears to be user-friendly with not too much information and the language quite clear.
- This integration tool will help to reinforce the need to link the assessments and also demonstrate how the MDS assessment information informs the P.I.E.C.E.S. – where to go first, what tools to use, etc.
- The RAI-MDS and P.I.E.C.E.S. integration tool puts us on the map! Helps LTCH staff recognize when to call on us – sooner not later when there is so much that we can do to enhance the resident's QoL. (Palliative Care Coordinator)
- I feel that MDS makes me better at P.I.E.C.E.S.!