

# Implementing technology-based care and management systems for effective aged care outcomes

#### **Presenters:**

**Prof Tracey McDonald Ms Caroline Lee** 

#### **Co-authors:**

Dr Jennifer Hardy Ms Caroline Kwok



# Drivers for change:

- Evidence-based practice
- Evidence-based management
- E-Commerce (2004)
- Government "one off" IT funding
- Increasingly complex data on care, treatment, support and protection
- Need for efficiency in information management (storage and retrieval)

# Our challenge:

- Implement contemporary systems of information technology (IT) to the aged care context at RSL LifeCare ANZAC Village, Narrabeen
- Identify factors that influence staff uptake of IT and the development of IT proficiency
- Use approaches to overcome IT resistance by staff and enhance their IT proficiency





# System design

- Workflow issues
  - Systems of client care,
     treatment and management
  - Continuity of records in transferring from paper to IT system
  - Regulatory requirements



# Australian government regulatory compliance

- New funding model, the Aged Care Funding Instrument (ACFI) introduced March 2008
- Resident Classification Scale (RCS) replaced after 10 years
- Accreditation under the Aged Care Act 1997 and Quality Principles requiring evidence of care and management outcomes – triangulated within records systems.



# Systematic approach

- Staff 'computer knowledge' survey
  - Information on the change and reasons for it
  - Introduction to the new computer system
  - Identifies the type, content and frequency of training needed

# Survey results

- Stages 1 & 2 involved 125 staff (40%) in low care hostels
- 17.6% no computer knowledge
- 36% claimed a basic understanding
- 46.4% good working knowledge of computers and could use them
- Subsequent surveys revealed similar results patterns in the spread of staff skills



# Staff training

- Proficiency streaming based on IT skill levels and work role requirements
- oTotal = 1,147 hrs
  (av. 3.7 hrs per person)

#### • Program:

- Introduction (1.5 Hrs) for staff with no computer experience
- Introduction to Lee Total Care system (3 hours) for staff with needing refresher training
- Lee Total Care for registered and enrolled nurses (6 hrs) to focus on usage proficiency

# Going 'live'

- All staff (310) were assessed as competent before their area went 'live'
- As staff achieved competence they were issued with a username and password

# Accepting changes to work practices

 Nurses and care staff were required to undertake the same training and complete the same online tasks in their roles



# Ongoing user support

- Two trainers (400 hours for set up and training + 150 hours for ongoing assistance and support
- 40 hours of IT technical support via the LTC Training Environment on computers in their workplaces
- Staff were encouraged to 'play around' with the computers and the system

Some staff even came in on their days off to practice!

# Responses to change

#### Culture

- Carer Services
  - Nursing staff mix, RNs, EENs
  - Certificate III, AINs

## Willingness to change

- Power shifts, 'keepers' of information
- Safety
- Confidence





- The new system
  - Admissions Assessment \*
    - Customize
    - Sequence
  - Care Planning
    - ICD 10
    - Nursing Diagnoses
    - Gordon's Functional Health Patterns
  - Monitoring quality

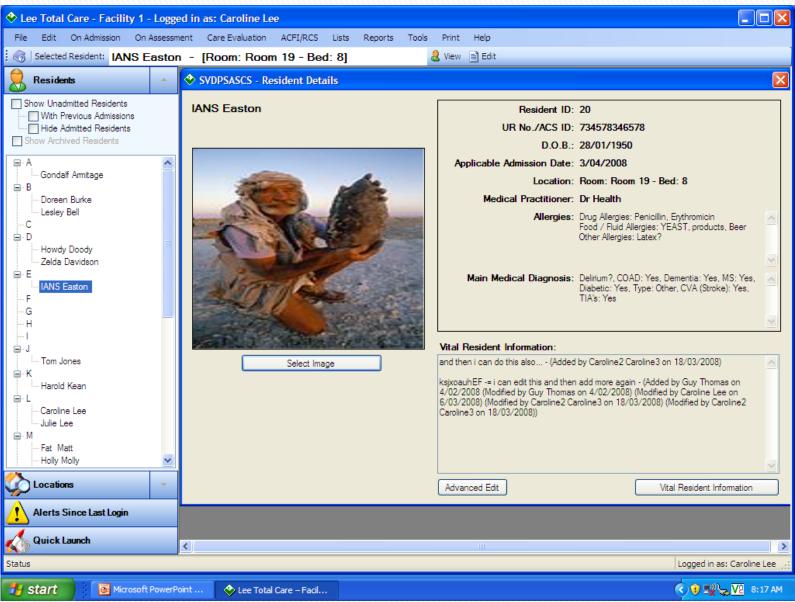
Industry and organisational relevance is essential

# Some Lee Total Care (LTC) examples may help to explain:



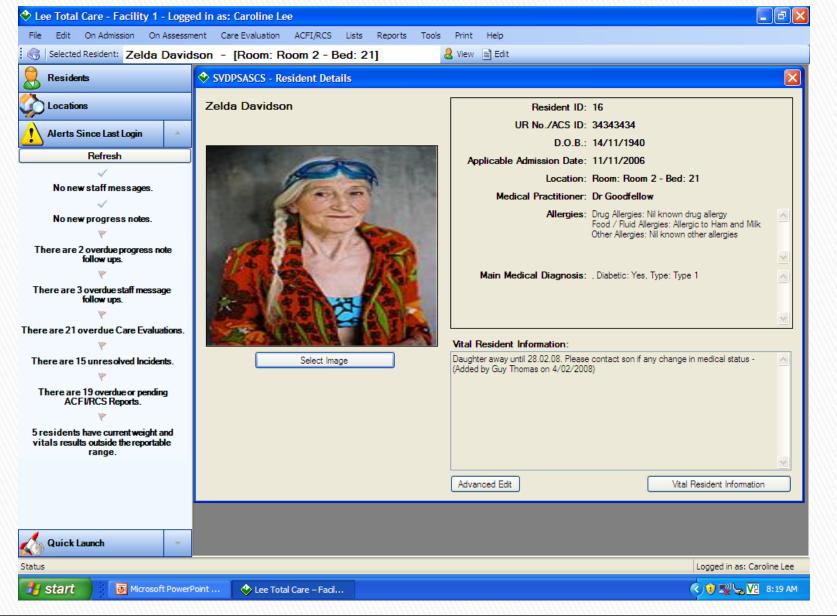






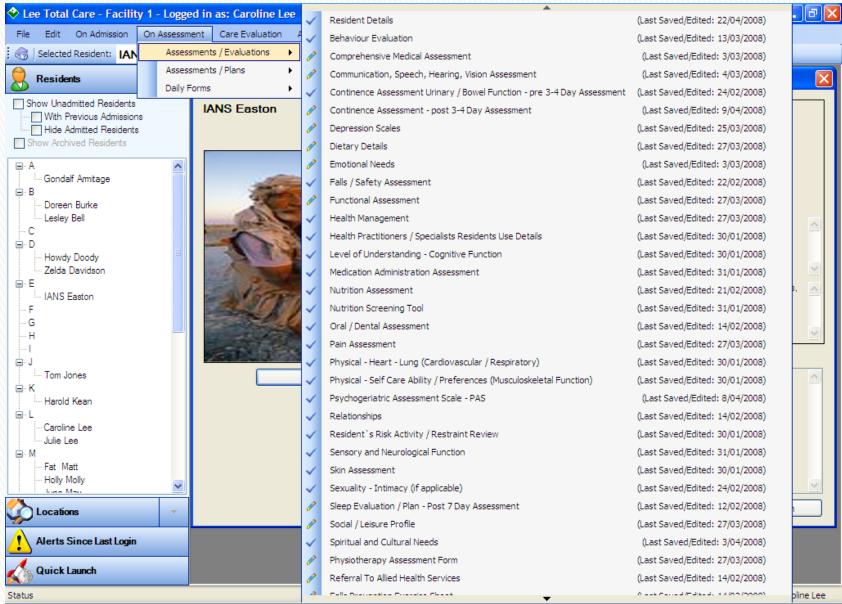












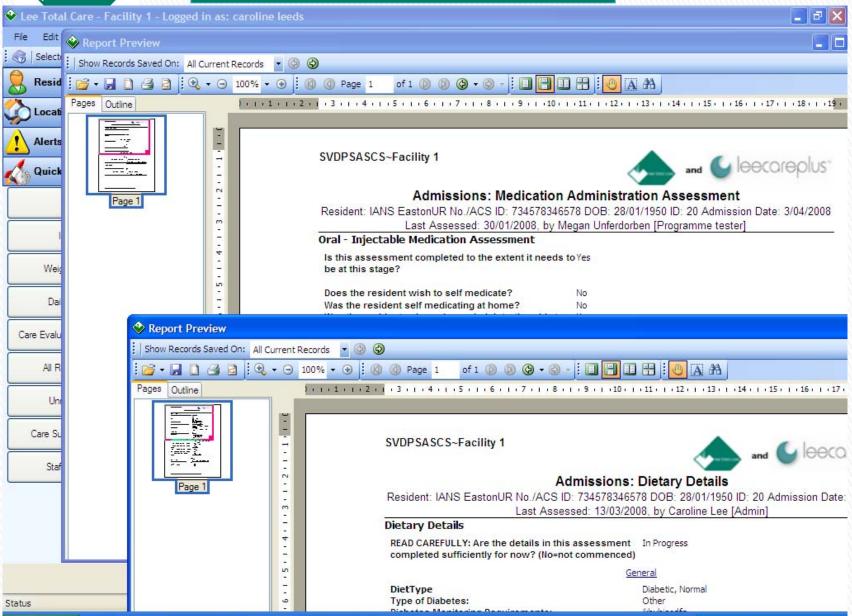




Lee Total Care - Facility 1 - Logg	ed in as: Caroline Lee - [Dietary Details]		
🖳 File Edit On Admission On Ass	sessment Care Evaluation ACFI/RCS Lists	Reports Tools Print Help	_ ♂ ×
Selected Resident: Zelda Davidson - [Room: Room 2 - Bed: 21]			
Residents	🔛 🖟 🖏 Resident: Zelda 🛭	Davidson D.O.B. 14/11/1940 UR No./ACS ID: 3434	3434
Locations	Dietary Details		
Localors	Food Likes:		
Alerts Since Last Login	Food Dislikes:		
Quick Launch	Food / Fluid Allergies:	Allergic to Ham and Milk	A
Incident Form	Eating Aids / Utensils:		
Infection Rates	Serve Size:	Very Small	~
	Nutrition Consistency		
Weight And Vital Signs	Swallowing difficulty details :		
Daily Progress Notes		Level 900/ Extremely Thick (pudding or mousse)	~
	Main part of meal ie. meat, pasta etc. :	Nomal	~
Care Evaluation 1 - 3 Monthly report	Other:	Normal Texture A- Soft Texture B- Minced and Moist	
All Residents Calculator	Vegetables or side dishes ie. rice :  Other:	Texture C- Smooth Pureed Cut-up	
Unresolved Wounds	Dessert:	Other (specify) Nil orally	
	Other:		
Care Support Plan - Summary	Breakfast Drinks (refer to drink consistency above)		
Staff Message Center	✓ Tea ✓ Milk ✓ Coffee ✓ Milo ✓	Water ☑ Juice ☐ Cordial	
	Other	werwerw	
	Sugar	1	~
	No. Sweeteners and type as applicable	werwr	
	Supplement	werwer	<u> </u>
-	Last Saved On: 24/01/2008, by cassie lee		Cancel Save and Close
Status Logged in as: Caroline Lee			
Start Microsoft PowerPoint 💠 Lee Total Care – Facil			

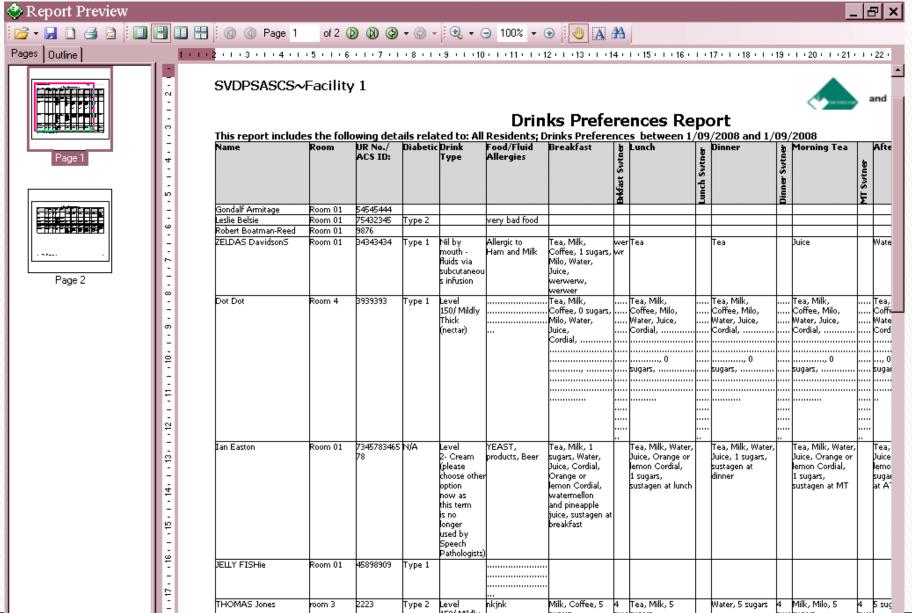






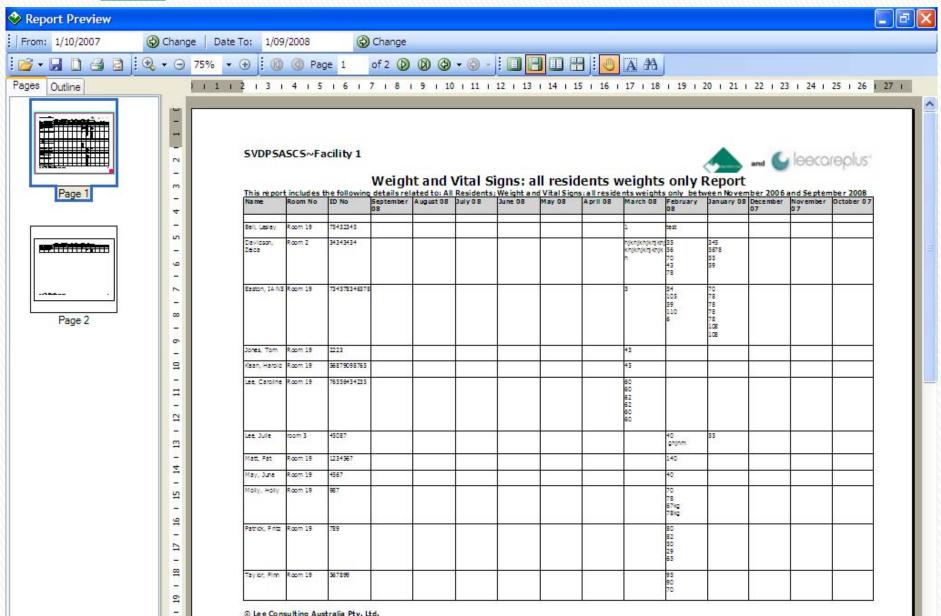






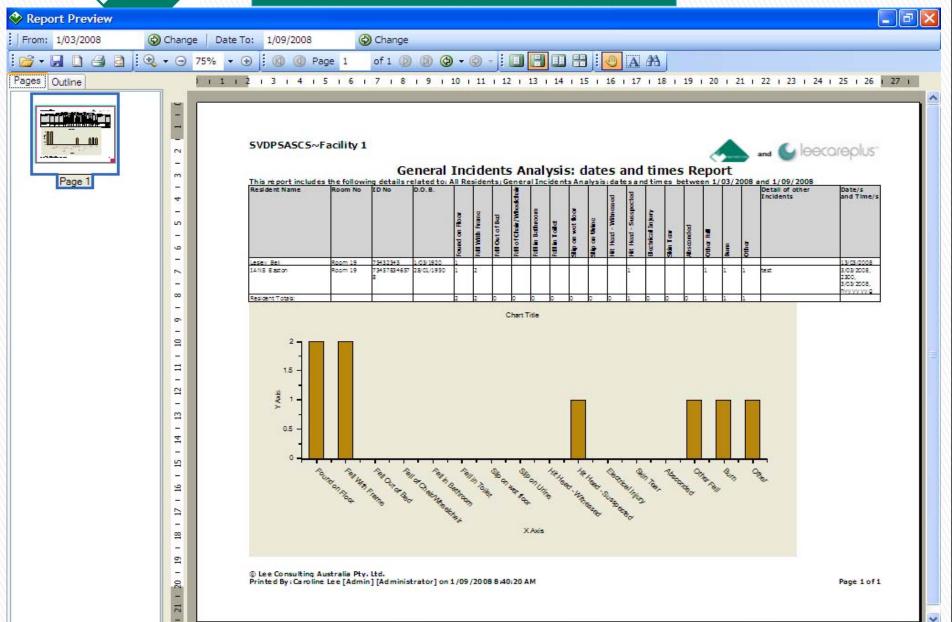








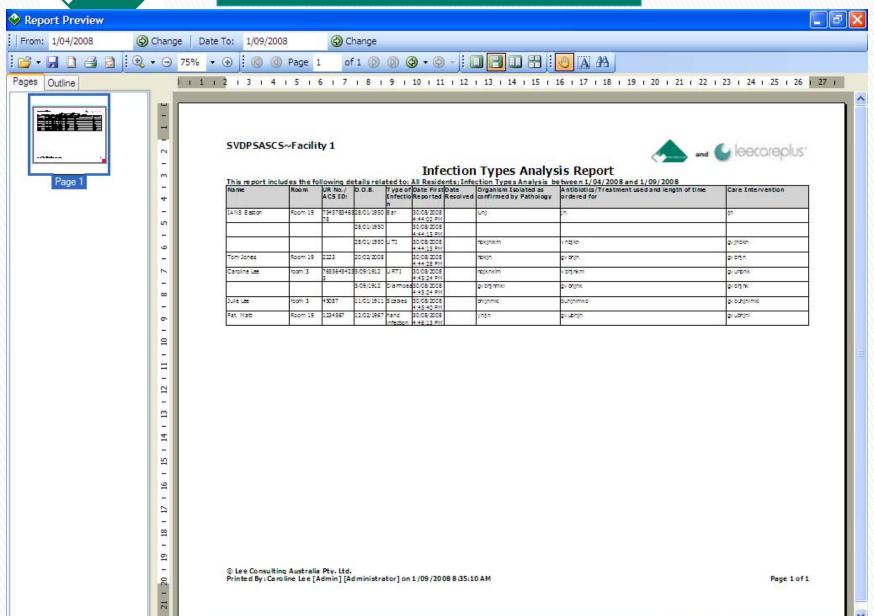








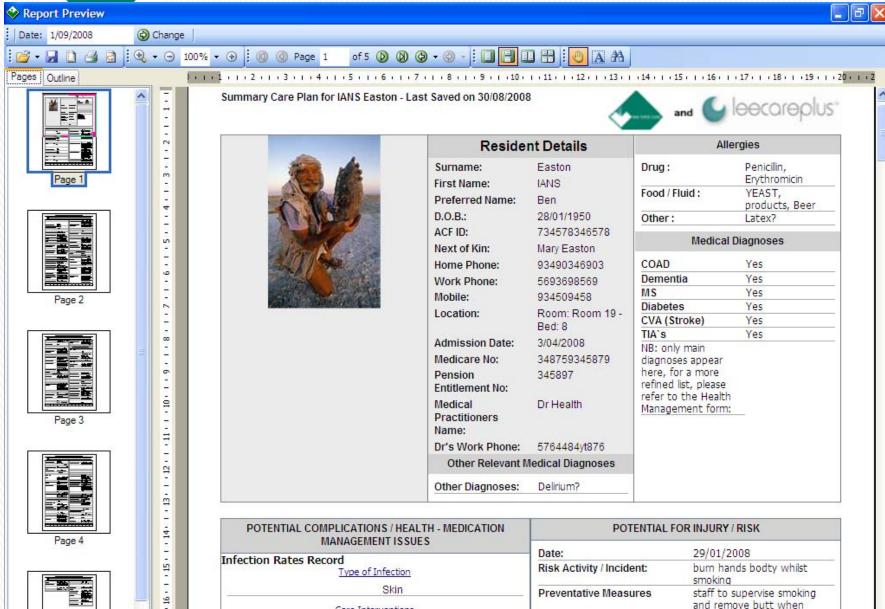
Report Preview







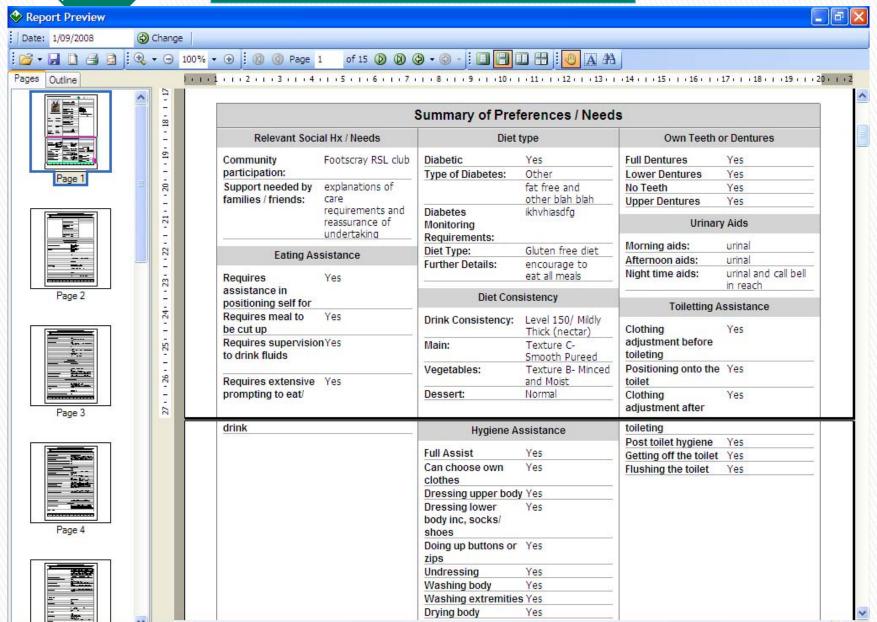
getting too low



Care Interventions

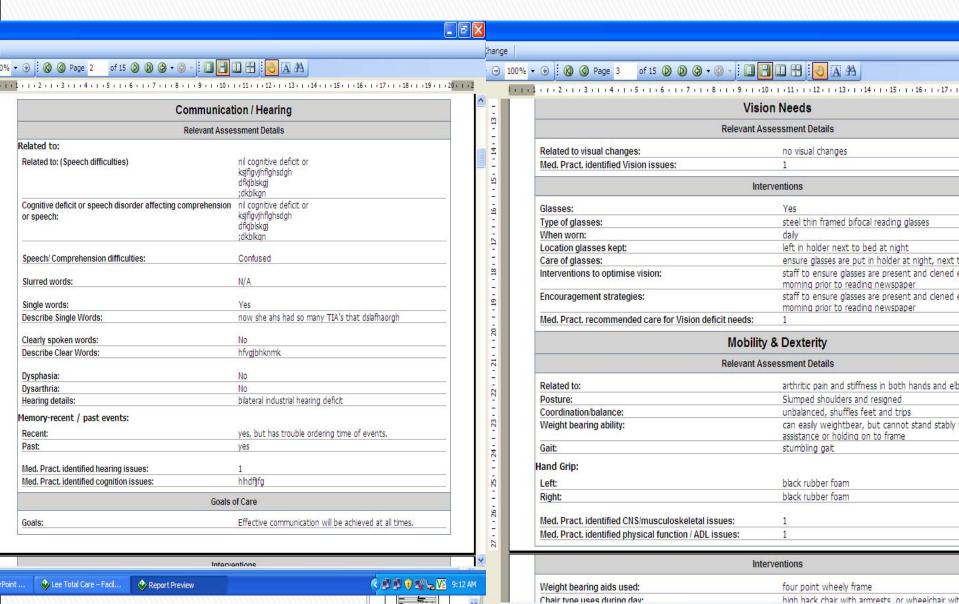














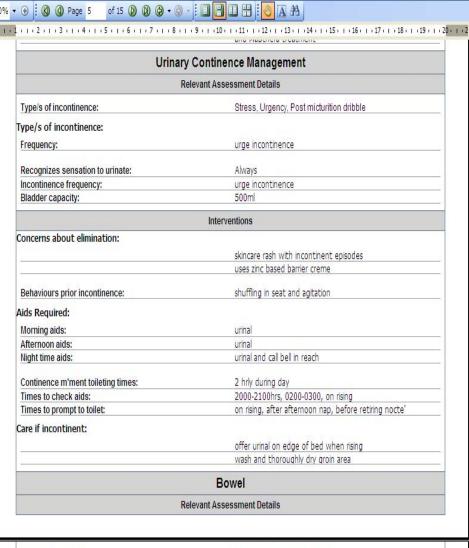
Related to a lack of:

#### Lee Total Care



prefers polo tops and tracksuit bottoms for comfort and





Exercise, Fibre, Fluids, Mobility

• ⊕ . O Page 6 of 15 D D →	◎ -   □ <b>-  </b>
1 - 1 - 2 - 1 - 3 - 1 - 4 - 1 - 5 - 1 - 6 - 1 - 7 - 1 - 8	8 :     9 :     10 :     11 :     12 :     13 :     14 :     15 :     16 :     17 :     18 :     19 :
	Toileting
	Interventions
Using toilet preferences/routines/aids:	requires assistance with toileting x 1 nurse, transfer on and of toilet
D	etails from Functional Assessment
	Clothing adjustment before toileting, Positioning onto the toilet Clothing adjustment after toileting, Post toilet hygiene, Getting off the toilet, Flushing the toilet
Encouragement to be provided:	encourage use of urinal at side of bed on rising due to strress incontinence
Other staff assistance/comments:	x 1 staf assistance required with transfer oin and off toilet
Aids used:	urinal
Self Care Needs	- Bathing / Hygiene / Dressing Grooming
	Goals of Care
Goals:	The resident will achieve hygiene and be dressed and groomed in accordance with their needs / preferences.
	Interventions
Prefers:	
Bath, Shower or Both:	Shower
When:	Every Day
Time AM:	after breakfast
Bathing / showering preferences / routine	s:
Preferences / routines:	requires assistance with showering x 1 nurse
Toiletries:	shaving cream and brush, aftershave, deodorant, talc powder
Haircare details :	wife prefers to cut hair with clippers once every 6-8 weeks. Ue shampoo and conditioner on alternate days
Cream details :	
Emollient or barrier cream:	zinc based barrier cream
Times to apply cream/s within a 24 hr period:	0800, 1800

Dressing / clothing preferences / routines:



Avoid these causes of:

Watch for the following signs of withdraw

Watch out for what upsets the

How to assist resident when upset:

Stress:

Anger:

Anxiety:

resident:

Assist:

Cope:

Relax:

Reduce:

Mini mental score Psychiatric Diagnosis

Bowel Care:

Depression:

Powerlessness:



supported as their needs are met with the assistance as stated.

Interventions

not understanding what people want me to do

Allow her to have her dog to visit regularly

Give personal space and allow to settle

Social Work Psychosocial Care

Relevant Assessment Details

Panic Attacks, Agitation, Anxiety,

Discomfort / Pain

Palliative Care Preferences / Wishes When III or Dying

Interventions

Regular aperient, Time to evacuate bowel after breakfast

Crowded rooms, Excessive noise, Multiple instructions

crowds, bossy people

crowds, noise, being rushed

being bossed about.

Dosn't always know

Resistive, Anger

Time alone

How the resident stays healthy & deals with illness:

Becomes frantic and angry

Oral/injectable medication

admin by:

Staff

Emotional / Relationship / Intimacy / Stress Management / Spiritual -**Cultural / Social - Community Needs** 

Goals of Care

The resident will feel supported and their living / quality of life needs will Goals:

be met with the assistance as stated.

Interventions

Support relationship with:

Mother Sister and pet dog

stay away from people

Relaxation strategies: get away from people

Ways the person copes with Becomes sullen and has angry verbal and physical outbursts

difficulties:

Ways to solve problems: Assistance required:

be nice to me

**Behaviour Management Needs** 

Relevant Assessment Details

Issue / Behaviour Description: Became verbally abusive to wards staff when woken for a shower.

Inappropriate language (swearing, abusing)

Usual time of day the

behaviour was exhibited and amount of times on average per

day:

Cause/Trigger (if known):

hates being woken . Disorientated. Confusion about time of day. Too

noisy / loud. Too many staff attending at once. Resident doesn't

want to live in residential aged care

Successful interventions used Calm the environment

Record ID:

Behaviour demonstrated when upset:

Sullen behaviour, Frowns, Hangs back

Yells and becomes defensive

Goals of Care

Goals:

Review Date | Jan 200\_ | Feb 200\_ | Mar 200\_ | Apr 200\_ | May 200\_ | Jun 200\_ | Jul 200\_ | Aug 200\_ | Sep 200\_ | Oct 200\_ | Nov 200\_ | Dec 200\_

© Lee Consulting Australia Pty. Ltd. Printed By: Training02 Training02 on 5/03/2008 2:41:23 PM

The resident will not demonstrate these behaviors and will feel

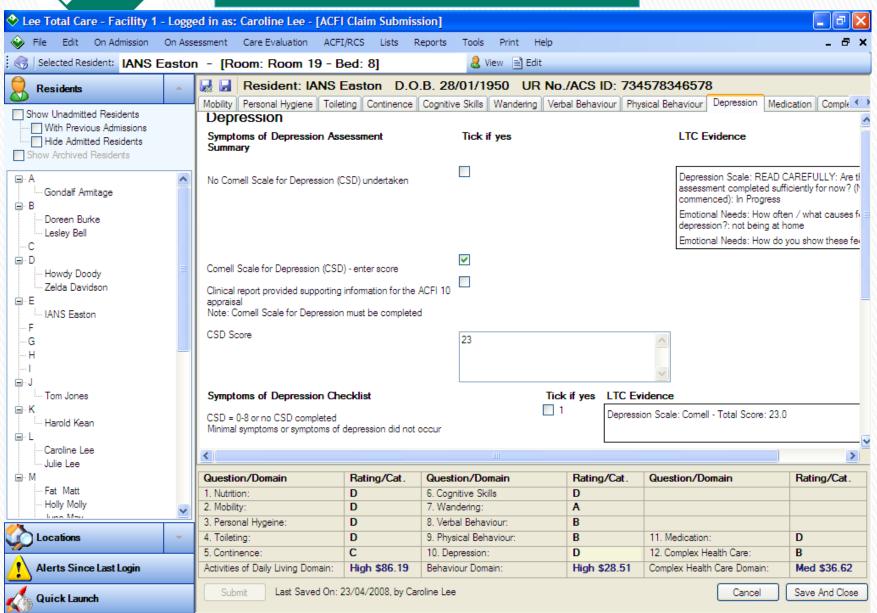
© Lee Consulting Australia Pty. Ltd. Page 5 of 6 Printed By: Training02 Training02 on 5/03/2008 2:41:23 PM

Review Date Jan 200 Feb 200 Mar 200 Apr 200 May 200 Jun 200 Jul 200 Aug 200 Sep 200 Oct 200 Nov 200 Dec 200





Logged in as: Caroline Lee





# Management commitment

- Support
  - Resident Service
     Committee
  - Financial investment
- Board `Change Champions
- Partnership with Industry
- Admissions Assessment \*
  - Customize
  - Sequence

**Success factors** 

# Culture of respect

- Information
  - Two-way flows
  - Suggestions accepted
- Individual differences
- Flexible learning modes
- Competency mastery approach





# Motivation and uptake

- Leadership
- Education
  - Beginners
  - Support Group
- Veterans Computer Club for Residents
  - Impact of residents taking to computers
- Quality Improvement
- Models of Care
  - Investigate current practices

Uptake







#### Issues

- Skill levels, workloads and professional roles
  - •Does IT reduce or increase workloads?
  - Role delineation issues
- Age of care staff
  - middle-aged staff with English as a second language
  - Younger staff, enthusiasm and illegitimate selfconfidence

# Other health providers

- Allied health
- Hostel managers
- Administrative staff

# Challenges and barriers

- Overcoming reluctance
- Keeping pace with enthusiastic adopters
- Basic learning needs
- Training materials
- Becoming a 'group' and discussion opportunities
- Backup materials



#### Evaluation of outcomes

- Successful training and implementation relied on:
  - Trainers from the organisation
  - Staged implementation allowing troubleshooting
  - Staff concerns were acknowledged and responded to immediately
  - Contextual relevance was maintained by our own onsite trainers

#### Roll-out

- LTC system rolled out to ten service sites by March 2008
- Ongoing upgrades of IT infrastructure and staff skills training is part of the system
- FAQ on IT and the LTC system is available on the company website and intranet as are all resources related to resident care and management
- Informal audits of the system documentation manage compliance risks



#### Results

- 75% of nurses, managers and care staff reached mastered all necessary skills and knowledge within 3 months
- Program planning and implementation by local and consultant IT trainers worked best
- Management commitment of money, time and human resources was essential

# Implications / recommendations

- What is required?
- What could have been done better?
- Were initial assumptions true about staff and IT capacity?





# Future Directions

- Measure outcomes
- Research relationship between process and outcomes.
- Explore the transfer of evidence to practice.

Thank You!!!