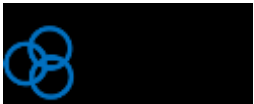




Brodaty, Draper, Low Triangle in 2017

Henry Brodaty



What does BPSD mean?

Behavioural and Psychological Symptoms of Dementia

- Aggression
- Agitation
- Anxiety
- Apathy
- Depression
- Disinhibition
- Nocturnal disruption
- Psychotic symptoms
- Vocally disruptive behaviours (calling out)
- Wandering
- Sometimes included...resistance to care

Terminology since 2003

Avoid language of blame or stigma

Impede good quality care

- **Challenging B^s → Changed behaviours**
- **Expressions of unmet needs**
- **Behavioural expression of need**
- **Responsive behaviours**
- **Behaviours of concern**
- **Behavioural & psychological changes of dementia**
- **Neuropsychiatric Symptoms (NPS)**

Prevalence of BPSD

- BPSD common in dementia
- ~90% in residential care¹
- Apathy ~50% AD², 100% severe FTDbv²
- Delusions, hallucinations, apathy, sleep disturbance $\geq 50\%$ in DLB²
- Agitation, sleep disturbance $> 50\%$ in moderate-severe in VaD²
- Depends on type & severity of dementia
- Depends on context

¹Edvardsson (2008); ²Kazui et al. (2016)

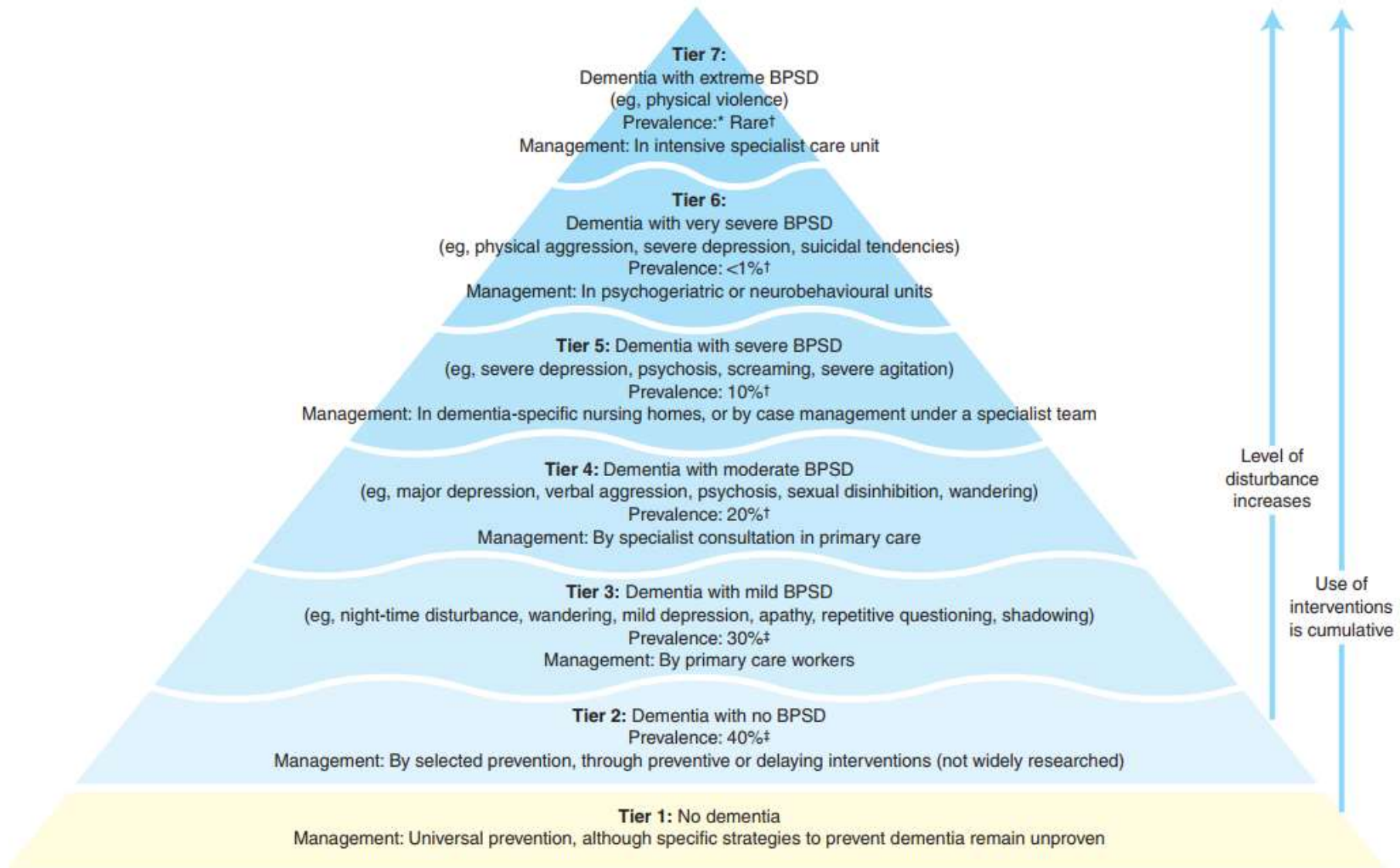


What is the Triangle?



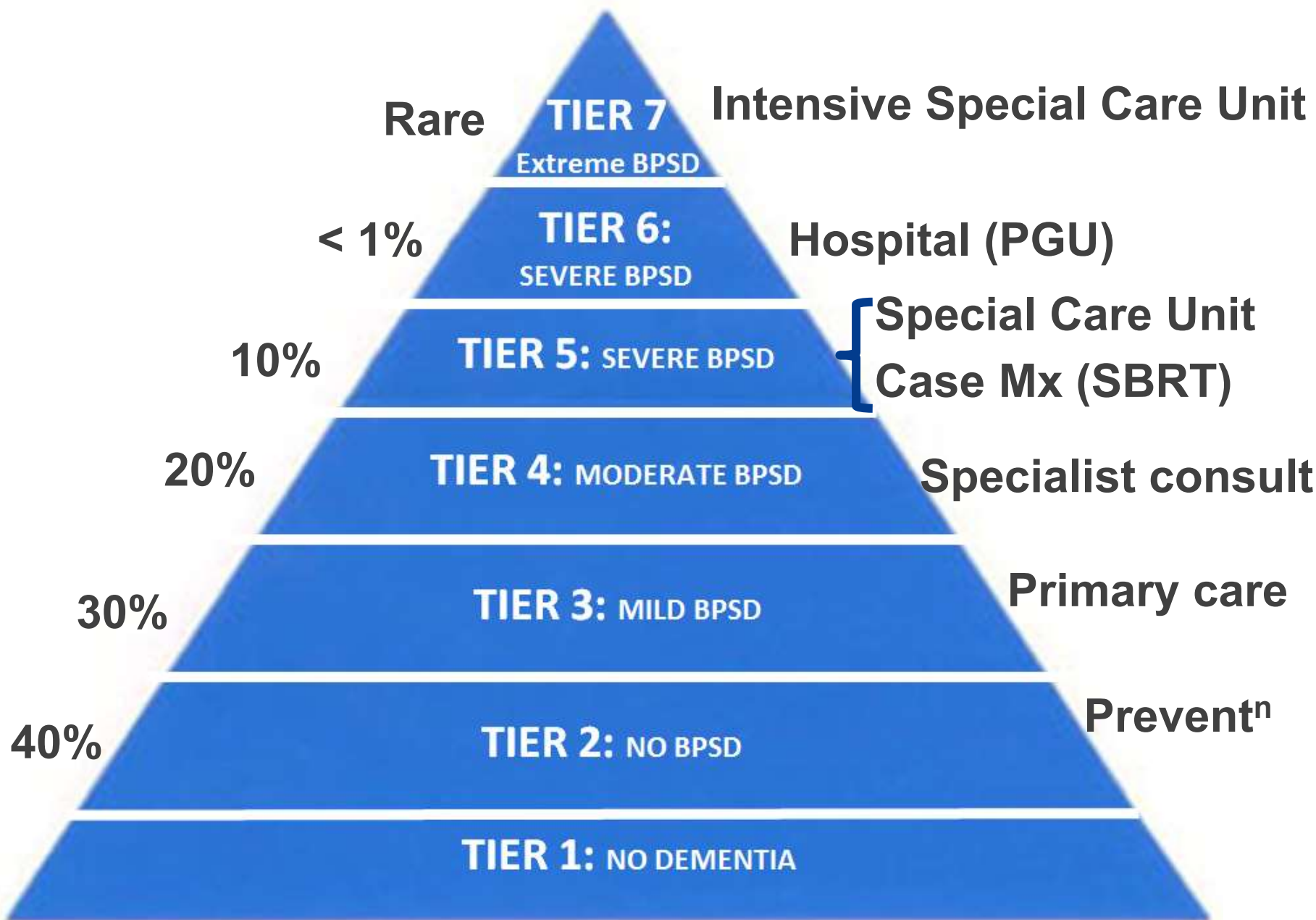
- **7 tiers based on severity of symptoms**
- **Tier 1 = no dementia; most frequent**
- **Tier 7 = v severe BPSD; most rare**
- **Each tier = different model of intervention**
- **Persons move up & down tiers depending on symptoms & intervention**
- **Intervention cumulative from bottom up**

Seven-tiered model of management of behavioural and psychological symptoms of dementia (BPSD)



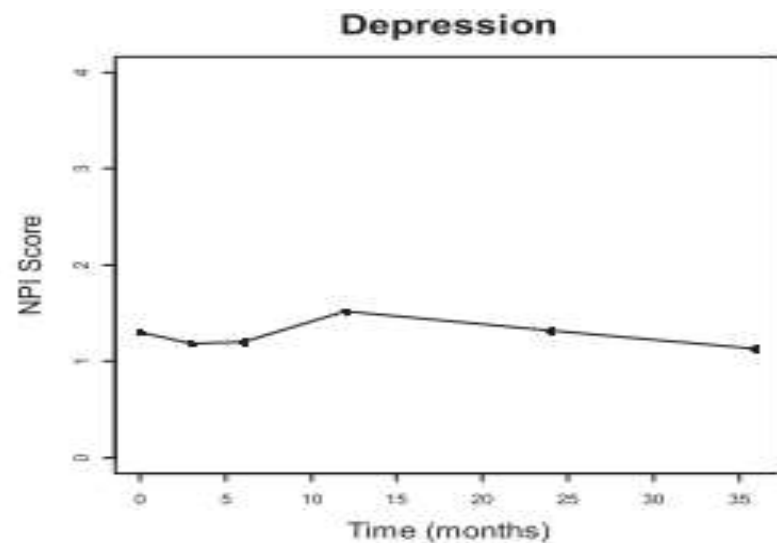
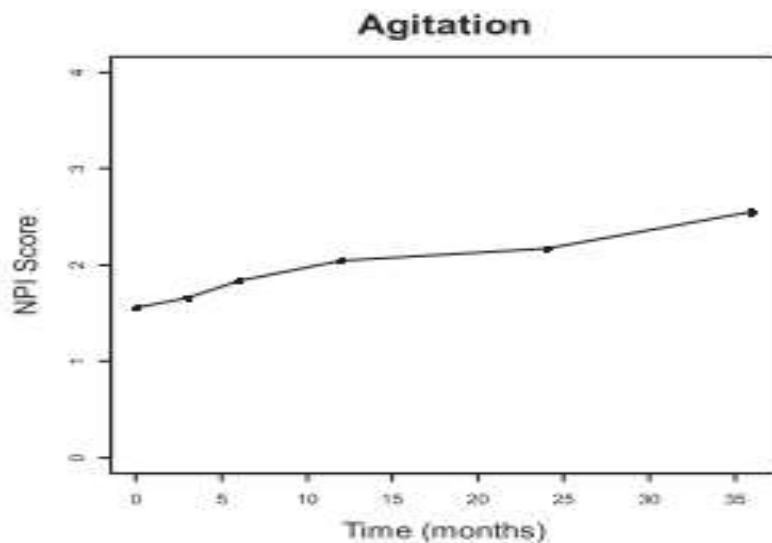
* Prevalence is expressed as estimated percentage of people with dementia who currently fall into this category.

† Estimate based on clinical observations. ‡ Estimate based on Lyketsos et al.²



BPSD: Natural History

- Some behaviours become more prevalent with time & severity – apathy, agitation
- Some peak then decrease as dementia progresses – depression, hallucinations



Brodaty et al. (2015) JAMDA, 5: 380-387

What's changed in research?

- **Pharmacotherapy**
- **Psychosocial interventions**
- **Quality and quantity of research**





U.S. Food and Drug Administration

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Drug Safety and Availability

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Public Health Advisory: Deaths with Antipsychotics in Elderly Patients with Behavioral Disturbances

The issues described in this communication have been addressed in product labeling (see Drugs@FDA).

4/14/2005



Adverse Effects of Antipsychotics

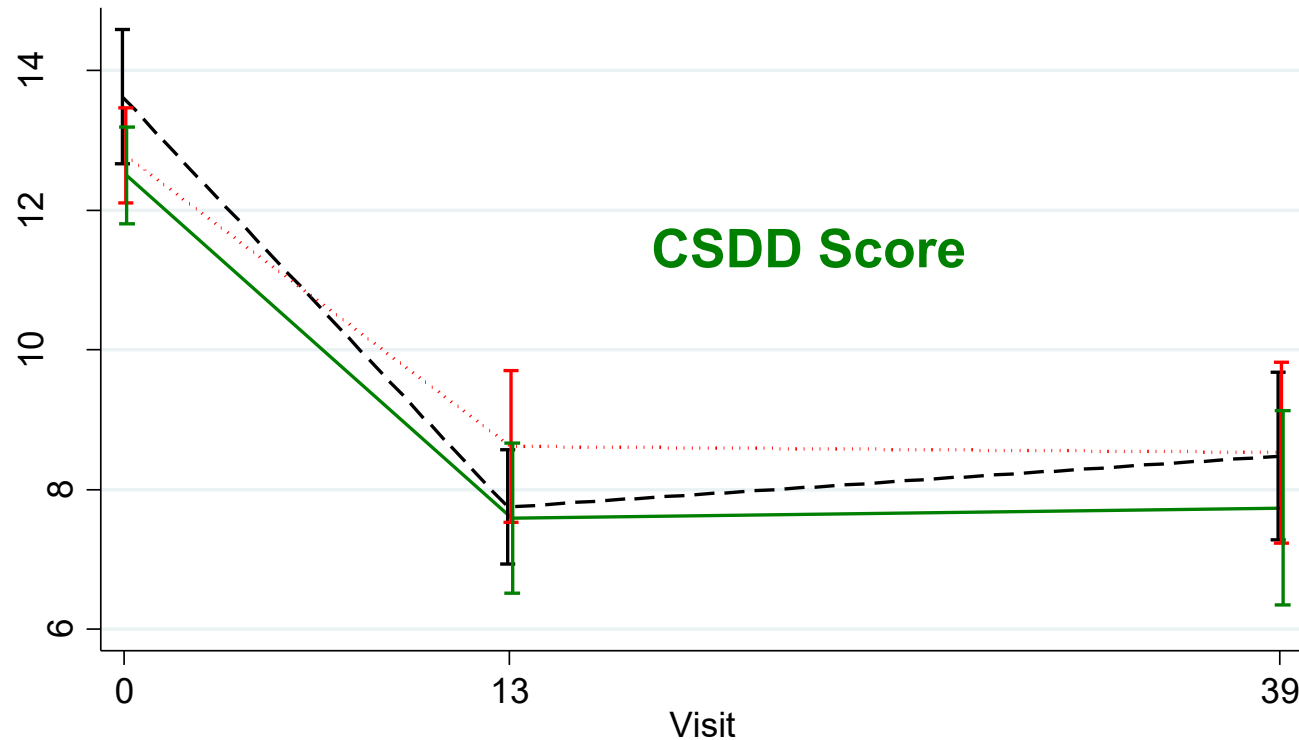
- Sedation
 - Dizziness
 - Extra pyramidal Sx
 - Falls
 - Metabolic syndrome
 - Weight gain
 - Orthostatic hypotension
- ↑ Prolactin,
gynaecomastia
- Anticholinergic
(eg urinary outflow,
glaucoma)
- Stroke**
- Death**

Antidepressants

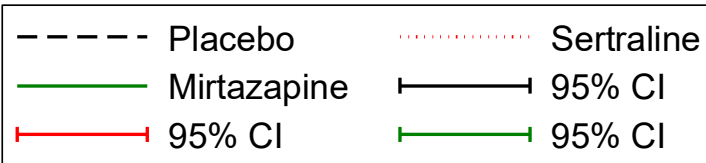
- Sertraline for treatment of depression in AD
- Wk-24 Outcomes (DIADS-2)
- 67 Sertraline, 64 placebo; 12 wk RCT + 12 wk
- No between-groups diff in:
 - CSDD score
 - remission rates
 - secondary outcomes
- SSRI associated > adverse events of diarrhoea, dizziness, dry mouth, pulmonary SAE (pneumonia)

HTA-SADD Trial

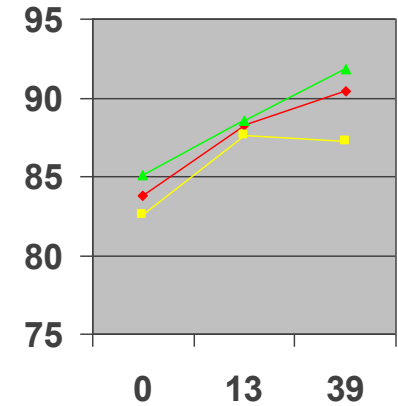
- Mirtazapine 15 mg & sertraline 50 mg; 1→3/day



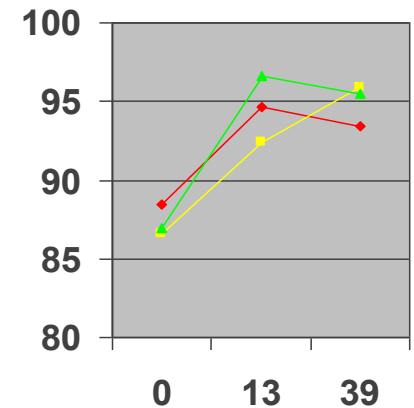
N = 507



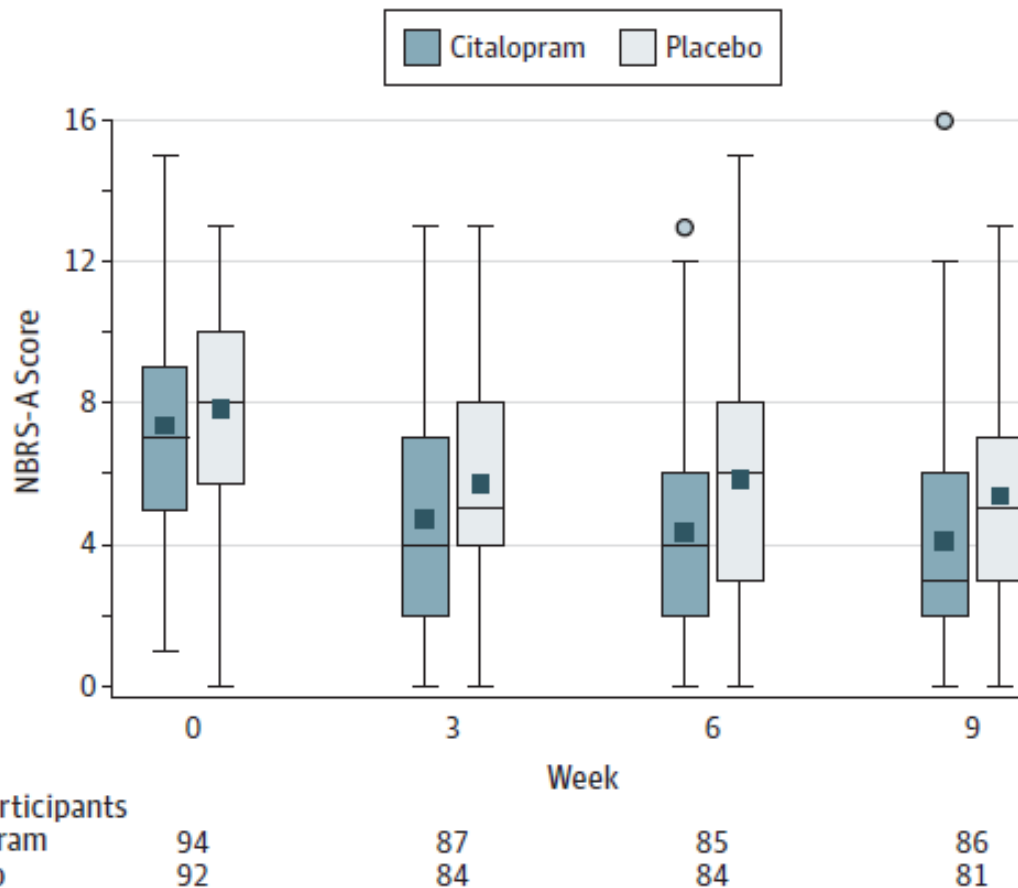
DEMQOL



DEMQOL-Proxy Score



CitAD RCT – citalopram & agitation



- **Significant better with citalopram**
- **Cognitive & cardiac adverse effects may limit effectiveness at 30mg/day**

The HALT study

Halting Antipsychotic use in Long-Term care



- A single-arm 12-month longitudinal study in 23 aged care facilities of at least 60 beds in urban and rural NSW
- Residents assessed ≈ 4 wks & 1wk prior to deprescribing
- Re-assessed 3, 6 & 12 months later



Pre-baseline

Baseline



3 months

6 months

12 months

The HALT study

Halting **A**ntipsychotic use in **L**ong-**T**erm care



Education for GPs, nursing staff, families

Sustained antipsychotic deprescribing in 75% of 133 residents over 12 months....

- **Without re-emergence of behaviours**
- **Without substitution regular medication & minimal prn benzodiazepine use**
- **LTC staff are significant drivers of AP prescribing**
- **20-25% stayed on antipsychotics; benefit??**
- **Questions remain about identifying who benefits from continuing antipsychotics**

Novel Drugs



Cannabinoids

- Several cannabinoids being researched
- **Dronabinol:** ↓ agitation, aberrant motor & night-time behaviours¹
- **Delta-THC:** ↓ delusions, agitation, aggression, irritability, apathy²
- **Nabilone:** ↓ behavioural Sx (case study only)³
- RCT for agitation underway⁴

¹Walther et al. (2006); ²Shelef et al. (2016); ³Passmore (2008); ⁴<https://clinicaltrials.gov/ct2/show/NCT02351882>



Dextromethorphan-quinidine

- Double-blind RCT in AD patients
- 2x5-week treatment stages
- Dextromethorphan-quinidine=152;
Placebo=127
- DV: NPI Agitation/Aggression scores
- Stage 1: ↓NPI for treatment vs control
(LSM= -1.5; 95%CI: -2.3 to -0.7; $p<.001$)
- Stage 1: ↓NPI for treatment vs control
(LSM = -1.6; 95%CI: -2.9 to -0.3; $p = .02$)

Stimulants for apathy

- Double-blind RCT in AD patients with mild-mod apathy
- Methylphenidate (MPH) (10mg BD) vs placebo; administered for 6 wks, N = 57
- 17 patients = apathy (≥ 3.3 points on AES)
- NPI apathy score improved on MPH 1.8 points (95%CI: 0.3-3.4) > placebo (p = .02)

Rosenberg P et al (2013); Lanctot K et al (2014)

Person centred care



Caring for Aged Dementia Care Resident Study (CADRES)



- Cluster RCT, urban RACFs
- 15 sites with 289 residents
- 3 groups: Dementia-care mapping; Person-centred care; usual care (control)
- f/u = 4mths
- ↓ CMAI score for DCM (mean diff=10·9, 95%CI: 0·7–21·1, p=0·04) & and PCC (13·6, 3·3–23·9; p=0·01) at f/u

PerCEN: a cluster RCT of person-centered residential care and environment

- **Confirmed benefit of PCC in reducing agitation**
- **PCE not effective but difficult to implement within strictures of RCT**

Chenoweth L et al *Int Psychogeriatrics*. 2014, 26:1147-60

Tailored Activity Program (TAP)

Home-based occupational therapy intervention

Wait-list control RCT, N=60

At 4mths: problem behaviours↓, activity engagement↑

Fewer CGs reported agitation or argumentativeness

Caregiver benefits:

- **↓ hours “doing things” & being “on duty”**
- **↑ mastery, self-efficacy & skill enhancement**

Gitlin et al. (2008) Am J Geriatr Psychiatry; 16(3): 229–239

Tailored Activity Program (TAP)

- **Beneficial for FTD (O'Connor CM et al, in press; Gitlin L et al, 2017)**
- **Adaptation for Australia trial (Bennett S, Clemson L et al)**

CG interventions in the Community

- Meta-analysis of nonpharmacological Interventions for BPSD
- 23 RCTs or pseudo-RCTs included
- eg: ↑ CG skill training/education,
↑ CG support/self-care
- Outcome: ↓ BPSD, effect size=0.34
(95%CI: 0.20–0.48; $z=4.87$; $p=0.01$)
- CG Outcome: ↓ CG reactions, effect size=0.15
(95%CI:0.04–0.26; $z=2.76$; $p=0.006$)

Brodaty & Arasaratnam (2012) Am J Psychiatry; 169:946–953

Novel strategies

Humour therapy

Volunteers, Montessori

Music, singing, dance therapy

Integrating kindergarten/ babies



Humor therapy: SMILE study

- **20% reduction in agitation**
- **Effect size = antipsychotic medications for agitation**
- **Adjusting for dose of humour therapy**
 - **Decreased depression**
 - **Improved quality of life**



Low LF et al BMJ Open 2013

Brodaty et al Am J Ger Psych 2014

Low LF et al JAMDA 2014

Quality and Quantity of Research

- Large ↑ in quality of research
- Large ↑ in number of studies
- ~Doubling in papers rated as “strong”
 - ~30% (2012) → ↑~70% (2017)
- Improvement in psychosocial papers:
 - ~ 24% (2012) → ↑ **60%** (2017)
- Improvement in pharmacological papers:
 - ~ 38% (2012) ↑ **80%** (2017)

What's changed in services for BPSD

- **Dementia Support Australia: Dementia Behaviour Management Advisory Service (DBMAS) 1- 800 699 799**
<https://www.dementia.com.au/>
- **Severe Behaviour Response Teams (SBRT) <http://www.sbrt.org.au/>**
- **Flying squads – some hospitals**
- **Special care units – some areas, U Wollongong review, Commonwealth WP**



DCRC – BPSD resources



- Behaviour Management, A Guide to Good Practice
- Clinician's Field Guide
- Guide for Family Carers
- BPSD Guide App for clinicians
- App for carers & frontline care staff
- Posters for remote Aboriginal communities
- LGBTI resource soon!
- CALD, need funding

www.dementiaresearch.org.au/bpsdguide



An Australian Government Initiative

Behaviour Management

A Guide to Good Practice

*Managing Behavioural and Psychological
Symptoms of Dementia*



DBMAS

dementia behaviour
management advisory service

Helping Australians with dementia, and their carers



UNSW
SYDNEY

A Guide for Family Carers

*Dealing with Behaviours in People
with Dementia*



DBMAS

dementia behaviour
management advisory services
Helping people live with dementia and their carers



BPSD Guide

*Managing Behavioural and
Psychological Symptoms
of Dementia*



Download on the
App Store



BPSD Guide

*Managing Behavioural and
Psychological Symptoms
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BPSD Guide

Behaviour Management - A Guide to Good Practice, Managing Behavioural and Psychological Symptoms of Dementia (BPSD)

- Restless/agitated behaviours >
- Psychological/mood symptoms >
- Psychotic symptoms >
- Disinhibited behaviours >



Aggression

Physically or verbally threatening behaviours directed at people, objects or self

-  Presenting symptoms >
-  Contributing factors >
-  Differential diagnosis >
-  Assessment tools >
-  Conclusions >
-  Precautions >
-  Psychosocial/environmental interventions >









Agitation

Psychosocial/environmental interventions

Acupressure
Scientific quality of research: Moderate
Outcomes: Positive; 1 large & 1 small pilot study
Animal-assisted therapy
Scientific quality of research: Limited
Outcomes: Positive; 1 small case series
Aromatherapy with lavender oil inhalation
Scientific quality of research: Moderate
Outcomes: Positive; 1 study
Bright light therapy
Scientific quality of research: Moderate
Outcomes: No benefit; 1 study *MAY INCREASE AGITATION
Closing Group intervention, small group, resident driven program
Scientific quality of research: Limited
Outcomes: Positive; 1 small study



Wandering

Clinical scenario

Presentation

Mr E is a 63 year old Aboriginal man who moved to Adelaide from a regional community when he was 16. He lived with his wife until she died several years ago. While raising their family of five children, they maintained strong community links with Aboriginal friends and family in Mr E's original community. His connection to Country has remained very important to him. Family and community members have been supporting Mr E in the family home with the assistance of an Aboriginal-specific community service and this arrangement has been working well until recently. On three occasions in the past month Mr E has been found after dark some distance from home, underdressed for the weather and distressed. On the most recent occasion, a concerned passer-by alerted police after Mr E was unable to provide his address or contact details for his family. When the police approached Mr E he became uncooperative and verbally aggressive. Police ultimately located Mr E's daughter who collected him from the local police station to take him home.

Assessment

In order to reduce the presenting behaviour,

AGGRESSION

IN DEMENTIA

What is aggression?

- Hit out at others
- Punch, kick, scratch
- Push others
- Throw things
- Refuse care
- Scream or shout



Why does it happen?

- Dementia
- Pain
- Sick or infection
- Frustrated
- Scared or threatened during care
- Toilet problems

What could help?

- Keep everyone safe
- Keep respect
- Don't argue
- Know their story
- Calm them, help them feel safe
- Go to clinic for check up
- Stop noises around them
- Go back to Country
- Keep things to a routine
- Help them do things they like and know well



RESISTANCE TO CARE

IN DEMENTIA

What is resistance to care?

- Not want to eat or drink
- Not want to wash or change clothes
- Stay in bed too much
- Spit out food or medicine
- Walk away from help
- Shout at you or push you away when you try to help



Why does it happen?

- Dementia
- Pain
- Sick or infection
- Toilet problems
- Tired
- Don't understand what you are doing
- Feel shame when you try to help

What could help?

- Keep respect
- Know their story
- Go to clinic for check up
- Keep to their usual routine
- Let them do what they can for themselves
- Tell them what you are going to do to help
- Yarning with family and community
- Go back to Country



Why LGBTIQ considerations?

Need for care as LGBTIQ peoples age → anxiety around disclosure

Dementia → unable to self-censor information they may have previously guarded closely

Disclosure, inadvertent or by choice → potential discrimination where aged care services are not LGBTIQ aware & inclusive



SILVER RAINBOW
LGBTI-inclusive ageing & aged care

Behaviour Management: LGBTIQ Resources

- **Need for greater, targeted support for LGBTIQ people with dementia**
- **Consultation ++ with LGBTIQ community**
- **Module will contain information for direct care staff**
- **e-learning module in preparation**
- **Each section will also have link to more detailed fact sheet (aimed at clinicians)**

Fully Funded Online Courses



Caring for LGBTI People with Dementia

This course assists health and aged care workers and organisations provide culturally competent and inclusive care and services for lesbian, gay, bisexual, transgender and intersex (LGBTI) people with dementia

[Read More](#)

[Register](#)

Start Date 02 Oct 2017

End Date 10 Nov 2017

Location [Online Course](#)

Type Elearning

 6 hours to complete



The View from Here

This program encourages health professionals to understand the acute care experience from the viewpoint of the person living with dementia.

Start Date 02 Oct 2017

End Date 02 Jan 2018

Location [Online Course](#)

Assessment and Management of People with Behavioural and Psychological Symptoms of Dementia (BPSD)

A Handbook for NSW Health Clinicians



DICE for BPSD

- D: Describe** - “who, what, when and where” of situations where problem behaviours occur
- I: Investigate** – Aspects of patient’s health that might combine with other factors ...
- C: Create** – Develop a plan to prevent and respond to behavioural issues
- E: Evaluate** – Assessing how well plan is being followed, how it’s working, what needs to change

Kales et al. (2014) J Am Geriatr Soc 62:762–769

Training and Education

- **Dementia Training Australia:**
 - **Funded by the Australian Government**
 - **National delivery of training**
 - **<https://www.dementiatrainingaustralia.com.au/>**
- **DTSC GP education component of AA project (La Trobe University):**
 - **Supports GPs & practice nurses in timely diagnosis of dementia**
- **DBMAS toolkit: training for aged & health workers**

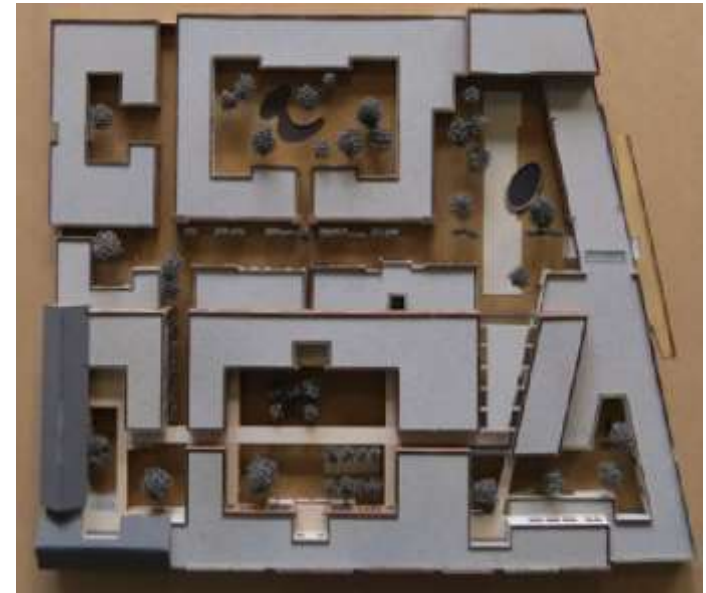
Innovations: Dementia Communities

- **The Eden Alternative:**
 - **International, non-profit organisation**
 - **Dedicated to creating QoL for elders**
 - **Systematic introduction of pets, plants, and children into RACFs**
- **Adopted by RACFs throughout the world, including 36 facilities in Australia and NZ¹**
- **↓ Psychotropic use by residents¹**
- **↓ Boredom & feelings of helplessness¹**

¹Brownie (2011) Australian J Advanced Nursing; 29 (1): 63-68

Innovations: Hogeweyk Dementia Village

- Specially designed village of 23 houses for 152 PWD
- Streets, squares, gardens, park where residents can safely roam
- Residents manage own households with assistance
- Village has selection of facilities (e.g. restaurant, bar, theatre) for residents and others = everyone welcome





Innovations: Korongee Dementia Village

- Modelled on Hogeweyk¹
- Located in Tasmania¹
- Completion 2019²
- Design:¹
 - Tasmanian town lifestyle
 - 15 six-bedroom homes
 - Grocery store, café, restaurant, cinema & beauty salon
 - Residents safe to wander
 - No institutional routines



¹Paola, S. (2017) Aust J Pharmacy. 98 (1165): 16-17; ²glenview.org.au/korongee-blog

Innovations: Group Homes Australia

- **Provides accommodation in traditional homes**
- **Currently 8 homes in Sydney (Eastern subs, Northern beaches, upper Nth Shore)**
- **Plans for further homes in lower Nth shore, Sutherland shire and Inner west of Sydney**
- **Number of residents limited to 6-10 per home**
- **Integration of technology, staff support, modern medical equipment, garden spaces & familiar home environment**



Eastern Suburbs

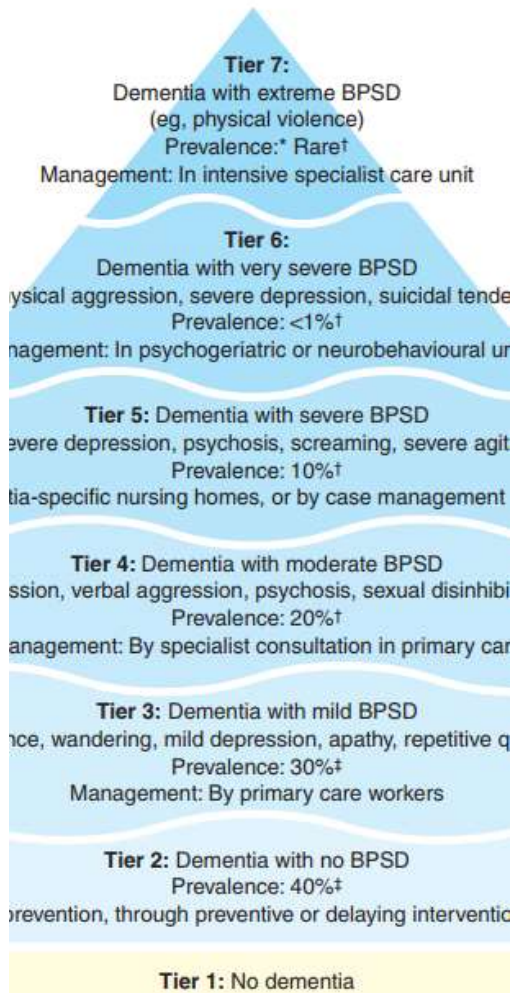


Northern Beaches



Upper North Shore

Using the Triangle



- The Triangle is a strategic device to organise planning services NOT a clinical diagnosis
- Tiers are based on populations, not individuals
- Categories are fluid = people transition according to their condition (e.g. UTI resolved) or treatment (psychosocial or Rx)

The Triangle and Mrs Brown



- The person in room 25 is not a “3” or a “5”
- Mrs Brown is a person with a family and a lifetime of experience

Using the Triangle: Mrs Brown in a NH

- Mrs Brown: moderately severe dementia
- Difficult, resists personal care (Level 3)
- Few weeks - aggressive to staff and residents, hitting, kicking, scratching (L5)
- GP called to prescribe something
- GP asks for behavioural chart and MSU
- Behaviours random; MSU → E Coli → antibiotic
- Mrs Brown Level 3
- Family and staff work to institute PCC → L2



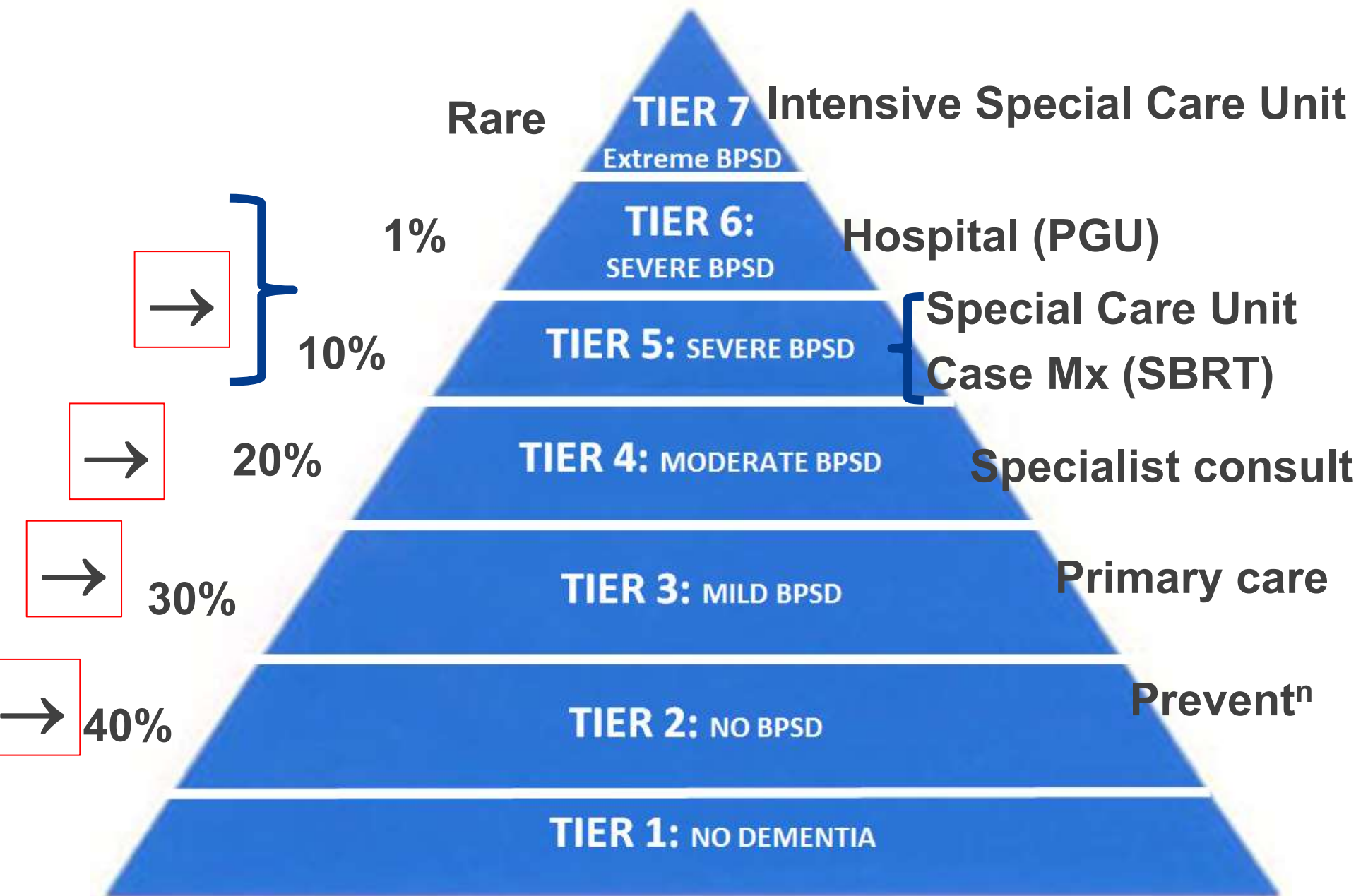
Where are we in 2017?

- **Vast improvements but much more needed:**
- **Service provision for more severe BPSD**
- **Allied health staff eg psychologists, OTs, SWs**
- **More 1-1 engagement (note evidence that PCC reduces agitation)**
- **DCRC → translate research findings into practice**
- **Plans for network of special care dementia units**

BE THE CHANGE

- **Work with family to understand person behind the behaviour**
- **Implement true person-centred care (PCC) at individual and system levels – ALL OF US**
- **Implement PCC**
- **Educate GPs, nurses, families, hospital staff, general public**
- **Expand services so that...**





The triangle is a model *not* a diagnosis

Dementia Collaborative Research Centre

www.dementiaresearch.org.au, &

Centre for Healthy Brain Ageing

www.cheba.unsw.edu.au

University of New South Wales (UNSW Australia)

h.brodaty@unsw.edu.au