

Student Training in Dementia

Final *STriDe* Project Report

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1 Executive Summary

The **aim** of the STriDE (Student Training Project in Dementia) was to develop an undergraduate medical curriculum in dementia that produces graduates with improved knowledge and improved skills in the diagnosis and management of dementia. Fostering positive attitudes towards older people with cognitive impairment was also a key aim of the project.

The project took a multi-level approach, commencing initially with a scoping study to evaluate the undergraduate dementia education currently provided by both the Universities of Western Australia and Notre Dame in WA. This involved examination of curricular materials at both institutions. Students and stakeholders were widely consulted through focus groups and individual interviews, providing feedback on educational needs and barriers, understanding of and attitudes towards ageing, and input into the new curriculum. The results of the stakeholder consultation process were used to inform a survey that was widely administered to medical students and WA members of Australian and New Zealand Society for Geriatric Medicine. This survey helped refine understanding of the educational needs, content, strategies and assessments that will need to be implemented in the development of the dementia curriculum.

The current curriculum is well received by students and well supported by clinical teachers, but while it may meet basic requirements, both groups felt the curriculum could be improved to provide a more rounded clinical experience and facilitate the development of both knowledge and skills. Results showed that there appeared to be preference for a curricular framework that will standardise the dementia teaching between sites. Such a framework would be more explicit about the minimum expectations regarding student participation in both problem based and other experiential learning activities. The new curriculum should focus on the complete journey of dementia, including legal, emotional, cultural and social factors, in addition to impact on family and carers.

In accordance with these findings, primary recommendations for the development of the new curriculum and learning materials incorporated:

1. a systematic lecture on dementia to support well structured case based Problem Based Learning (PBL) modules, bedside teaching, clinic attendance and community visits.
2. development of a new online learning module for dementia that is case-based, locally relevant, interactive and engaging.
3. development of pre and post PBL module guidelines providing tutors with triggers for reflection to standardise material covered in PBL tutorials.
4. development of brief guidelines for students on dementia diagnosis and early management.
5. introduction of a student log book to ensure learning and exposure to a range of patients in a variety of care environments. The log book will form a record of the student's formal and informal teaching in dementia.
6. utilising multi-source feedback and a mini-clinical examination exercise completed with the student by the teacher in addition to current assessment methodologies.

These new curricular materials have been drafted and will be incrementally piloted with students completing their Geriatric Medicine Rotations throughout the remainder of 2009. Process evaluation will allow necessary changes to be made to materials before they are permanently included in the curriculum.

2 Introduction

The magnitude of demographic change in Australia indicates an increasing requirement for health care workers skilled in the management of people with chronic neurodegenerative conditions. Population ageing will impact greatly on all spheres of medical practice with few exceptions. There is thus a great need for foundational dementia education at the undergraduate level, to foster development of positive attitudes towards older people.

There are many challenges in the delivery of undergraduate medical dementia education. There is now a great heterogeneity of medical students, presenting the requirement to account for students' prior learning in the delivery of course contents. In Western Australia there is a great increase in the number of medical students relative to the number of clinical academics and clinical teachers, meaning that traditional methods of course delivery are no longer feasible. Increasingly, use of electronic media is being utilised to facilitate efficient delivery of curricular materials.[1] Modern medical education recognises that, although the teaching hospital remains a natural "educational node", hospital care is a small part of the care continuum. Thus courses must seek to provide relatively uniform content and experiences to students undertaking placements in diverse settings (including ambulatory care and the community).

National stock take of currently available dementia curricula content supports anecdotal perceptions that there is insufficient education and training for dementia. Even in courses that include dementia, the time and coverage allocated to key topics is often thought to be insufficient. Problems exist not only with curricula *per se*, but in the methods of delivery. According to the survey data, education and training were not designed and delivered in a manner to optimise access, learning effectiveness or the development of skills. Delivery methods were predominantly teacher-centered and used knowledge-based materials rather than practical experience and competency-based learning and assessment. There was also a lack of an organising philosophy or 'model of care' (such as a focus on 'person-centred care').

The current UWA geriatric medicine curriculum presents a good foundation on which to improve undergraduate medical dementia education. Each fourth year student undertakes a four week clinical attachment and problem-based learning program in Geriatric Medicine. Both parts develop a broad range of skills including history taking and physical examination techniques with older people, the assessment of mental state and disability, problem solving and clinical reasoning with regard to the common symptoms, clinical signs and syndromes seen in older people, and the construction of a management plan with emphasis on allied health staff involvement and rehabilitation strategies. Teaching is devolved to the three metropolitan teaching hospitals. There is a reliance on clinical tutors, including delegation of teaching responsibilities to Advanced Trainee registrars. Each teaching hospital has links with Restorative Units and Aged Care Assessment Teams at secondary hospitals.

Current formal teaching in dementia for UWA medical undergraduates includes a self directed learning module ("Mind Matters" with associated worksheets), group discussions and a visit to the Alzheimer's Association. Additional resources are provided electronically and students are invited to attend memory clinics, ACAT visits and visits to residential care or hostel facilities. Whilst use of the Mind Matters program has been successful, non-proprietary material is preferred for the longer term. Students develop skills in clinical assessment, investigation and management of cognitive disorders in their clinical placement.

Geriatric Medicine contributes one OSCE (Objective Structured Clinical Examination) station and three written questions to the fourth year assessment. Outcomes relating to dementia are frequently assessed.

A second medical school has been established in Western Australia, at the University of Notre Dame. The School places emphasis on the supply of doctors to areas of unmet need, and utilises active learning strategies in a four year post graduate curriculum. There is no specific attachment to geriatric medicine units or specific teaching in dementia. Whilst Roscoe [2] was able to show that introduction of a one week curricular program in geriatric medicine was associated with significant improvements in medical students' attitudes toward and knowledge of older patients, it is not known whether specific attachments should be favoured. Given the high prevalence of dementia, there is a rationale for infusing other curricular areas with teaching regarding the care of older people with cognitive impairments, rather than delivering teaching in specific blocks. The presence of these two different models of medical education presents opportunities for evaluation of the different approaches, and a challenge to develop a flexible curriculum that is relevant to both medical schools.

In addition to a need for curricular materials, population ageing also presents a need to train health professionals with interest in, and positive attitudes towards, older people. Although to some extent intangible, there have been attempts to validate scales to measure the attitudes of trainees towards older people. Most work has been done in the vocational phase of medical education. The Maxwell Sullivan Attitude scale [3] is the most well known scale. Subsequent work has often utilised or modified the MSAS. Reuben [4] developed a scale to measure attitudes of postgraduate medical trainees towards older people which seemed reliable and sensitive to change over time. However reliability and validity problems have become apparent when these scales are applied among different populations. [5] The available scales include some items which would be confusing to Australian respondents (such as reference to 'Medicare') and thus require modification for use locally.

By enhancing the undergraduate education of WA medical students, graduate doctors will enter their vocational training with the essential foundational knowledge, skills and attitudes needed for the care for people with dementia (PWD). This foundation will in turn enhance their ability to engage in their training for medical careers working with PWD in a competent manner, and will ideally encourage more trainees to undergo advanced training in this field.

3 Aim and Objectives

3.1 Aim

Development of a WA Undergraduate Medical Curriculum (and associated competencies and learning materials) in dementia, which facilitates improved knowledge regarding dementia, positive attitudes towards older people with cognitive impairment and improved skills in the diagnosis and management of dementia.

3.2 Specific Objectives

1. Explore current dementia education in Western Australia including curriculum content, structure, educational strategy and assessment.
2. Determine current satisfaction with dementia education at both institutions among teachers and students and obtain input into new curricular content, structure and assessment.
3. Develop a locally appropriate methodology to assess attitudes towards older people, ageing and aged care among students and stakeholders.
4. Engage stakeholders, including clinical teachers, to develop an undergraduate medical curriculum in dementia
5. Where possible, develop and pilot teaching and learning materials to support curriculum implementation.
6. Develop and pilot competency- based formative clinical assessments

4 Methodology

4.1 Scoping study of Current Curricula

The project commenced with a scoping study to evaluate the undergraduate dementia education currently provided at UWA and UNDA. This initial step involved examination of curricular materials at both institutions, including course syllabi, learning objectives and assessment materials, and comparing them to the recommended Body of Knowledge (BOK) described in the Stock take of Continence and Dementia Workforce Curricula, Education and Training Project Report, October 2006. This allowed the current status of dementia education at both institutions to be assessed relative to the recommendations of the Stock take document. Copies of relevant curricula were obtained from key contacts within each faculty. These contacts were briefed on the aims of the scoping study and searched the entire curriculum for content, learning objectives and assessments in any way related to dementia.

In addition to curricular content, data was collected describing how teaching is being delivered and what strengths and weaknesses teachers and learners feel are associated with the current program. This was achieved primarily through focus group discussion and student surveys.

4.2 Focus and Reference Group feedback

In order to gather feedback on the content, structure and assessment of the new curriculum, focus groups and individual interviews were conducted with relevant stakeholders. The approach for this was two-fold.

1. A formal reference group was formed, including representatives of clinical practice, academic geriatric medicine, clinical education, students, nursing, allied health, community agency and consumers. These stakeholders were invited to join the Reference Group in order to provide feedback on the development and evaluation of new curricula content, structure, assessments and materials, throughout the duration of the project. The final Reference Group consisted of six clinicians, one nurse, two allied health staff, one student, one senior acute care program coordinator from Alzheimer's Australia and one consumer representative.

2. Medical students in 4th-6th year at UWA and 3rd-4th year at UNDA were invited via their WAMSS (WA Medical Students Society) year representatives, to participate in focus groups in order to provide feedback on the current curriculum and advice on content and structure for the new curriculum. Student representatives from MSAND (Medical Student Association of Notre Dame) were also approached for their help in encouraging students to participate in the focus groups. A total of 14 students participated in the focus group feedback process. Students from 5th year at UWA and 3rd year at UNDA failed to respond to the call for focus group volunteers and therefore did not contribute.

Some of the specific aims of the stakeholder consultations were to:

- evaluate the strengths and weaknesses in the current curriculum, in terms of both content and structure
- identify potential resources that can be utilized in student training (e.g. community-based resources)
- seek input into the development of a new dementia curriculum, including content, structure, educational strategies and assessments
- identify where in the curricular structure of both institutions the material would best be presented.

Focus groups and stakeholder interviews were facilitated by the project officer. Data from these sessions were recorded on a digital voice recorder and transcribed. All participants provided informed consent and were assured that individual responses would remain confidential.

4.3 Survey

The aim of the survey was five fold:

- 1) to determine attitudes towards older people
- 2) to determine current level of dementia knowledge among students
- 3) to assess level of satisfaction with the current curriculum in terms of providing adequate knowledge and skills in dementia training
- 4) to obtain feedback on desired teaching methodologies, educational environment, essential content and assessments for the new curriculum
- 5) to define the desirable and essential core competencies for clinical and graduating students.

The available standardized tools for assessment of attitude towards older people (The Maxwell and Sullivan Attitude Scale and the UCLA Geriatrics Attitude Scale) were reviewed. A decision was made to utilise components of the UCLA scale as it is simpler and of more relevance to students. Items not of obvious relevance to the Australian setting were modified. Available knowledge based tools were reviewed and a number of items were selected from each. These tools included the Barrett UAB Alzheimer's Disease Knowledge Test for Health Professionals, The Gilleard Dementia Quiz and The Scherer Dementia Test for GP's.

Additional items were drafted to reflect the specific aims of the project in regard to satisfaction with current curricula. These items were based on the existing learning outcomes for the 4 week UWA Geriatric Medicine placement and were designed to assess whether these objectives are being met and where there may be weaknesses that the new curriculum needs to address.

Potential items were collated and circulated among members of the steering committee. Modifications were made in response to feedback and specific advice sought from Dr Zarrin Siddiqui, an expert in assessment methodology.

Items relating to knowledge, attitude and educational skills and satisfaction were piloted with a group of fourth year students both at the beginning and conclusion of their attachments. Items were then reviewed again and items with poor internal reliability or discriminative value were discarded or amended.

The results of the focus groups were used to develop additional survey items designed to validate the educational needs and barriers, content, educational strategies and assessments for the new curriculum, as identified by the focus group process. These items were again circulated for review and modification by the Steering Committee.

These items were added to the original survey. Formatting into scannable paper versions and an online web-based version was outsourced to an external agency. The survey collected primarily quantitative data with an opportunity to provide additional open ended feedback relating to the content of the new curriculum.

Sample

The survey was widely administered to clinical teachers, clinicians and students. An introductory email explaining the purpose of the survey and encouraging people to provide feedback, was sent out prior to the survey open date. A link to the online survey was then sent to all WA members of ANZSGM, in addition to 4th and 6th year UWA and 3rd and 4th year UNDA students (these students were completing exams so it was not possible to administer the survey in any other way). Manual distribution of hard copies of the survey was undertaken at student lectures when possible but made difficult because many of the students had already finished their formal teaching for the year. All participants were assured that survey responses would remain anonymous.

In total there were 206 student responses (128 from UWA and 78 from Notre Dame) However, not all surveys were 100% complete. This sample was comprised of predominately first and second year Notre Dame students and clinical year UWA students (see table). There were 22 teacher/clinician responses.

Number of responses	UWA	UNDA
First Year	1	35
Second Year	4	39
Third Year	45	-
Fourth Year	27	4
Fifth Year	48	-
Sixth Year	3	-
Total	128	78

The response rate is difficult to accurately determine as the various distribution methodologies make it difficult to be certain exactly how many students received the survey. If we assume that there are 200 students per year studying at UWA and 100 per year at UNDA, this would make our overall response rate around 15%. However, better response rates were obtained by manual distribution at lectures and tutorials, followed by collection of surveys. In these cases, an overall response rate of 50% was obtained (or 40% from UNDA and 65% from UWA). The online distribution of the survey produced relatively few responses. An estimated response rate for this method is just 2%.

There are 57 WA members of ANZSGM and with 22 surveys returned, the response rate was 39%. Given the online method of distribution, this is a considerably better response rate than that achieved using the same method of distribution for students.

Attempts were made to facilitate distribution of the survey to Notre Dame teachers. While some members of ANZSGM may teach at Notre Dame, a specific list of UNDA teaching staff could not be separately obtained. It is possible that the views of Notre Dame teachers (such as GPs and other non-geriatrician staff) are not adequately represented.

Paper responses were scanned and results compiled using pre-coded software. This data was presented and analysed in SPSS format. Similarly, online results were compiled for analysis in SPSS. Analysis incorporated frequencies, cross-tabs, chi-square's and t-tests.

4.4 Drafting of new Curriculum, educational and assessment materials

A draft curriculum and educational materials were developed, as informed by the currently available materials and views of stakeholders. Materials are currently being piloted and evaluated for effectiveness as well as stakeholder satisfaction. Process evaluation will allow any necessary modifications to be made to the curriculum according to feedback obtained from key stakeholders.

5 Results

5.1 Scoping Study of Current Curricula

UWA

The bulk of the dementia education in the UWA curriculum is currently taught as a four week clinical Geriatric Medicine placement taking place during the 4th year of medical studies. Students are asked to focus on dementia in particular during one week of this placement. Neurobiology, neuropathology and epidemiology of dementias are taught briefly during Foundation of Clinical Practice and Pathology in years 1-3. PBL activities involving dementia diagnosis and management are included in the 5th and 6th year neuropsychiatry courses and a PBL covering neurodegenerative conditions is covered in the 6th year Palliative Care rotation. The report sought to document not only the depth of learning but also the learning methodology (including skills and knowledge). In general, the UWA curriculum covers basic material in dementia care education and does include some skills and competency based learning rather than focussing solely on the acquisition of knowledge. Areas that were lacking in the curriculum included: co-morbid conditions, neuropsychological symptoms, pain and pain management, behavioural assessment and management, behavioural assessment tools, cause of behaviours, behavioural management for specific ADL's, spirituality and sexuality and psychosocial behavioural interventions.

UNDA

At Notre Dame dementia education is infused in the general medical curriculum in years 3 and 4 and in 1st year Psychiatry. Students may be involved in the diagnosis and management of PWD during their general practice, emergency medicine and psychiatric placements in 3rd and 4th year. Specific skills in assessing mental state and knowledge of dementia are covered in 1st year Psychiatry. In general, the UNDA curriculum appears less comprehensive regarding dementia education than that at UWA and more reliant on what students may or may not be exposed to during rotations that are not specific to Geriatric Medicine.

Areas that were lacking in the curriculum are as follows: neurobiology of cognitions, types of irreversible dementia's, co-morbid conditions, mental health/psychiatric differentials, neuropsychological symptoms, some areas of assessment and management, pain and palliative care, behavioural assessment and management, behavioural assessment tools, cause of behaviours, behavioural management for specific ADL's, spirituality and sexuality, psychosocial behavioural interventions, CNS medications and model of care.

5.2 Focus and Reference Group Feedback

5.2.1 Current Curriculum

In general, the current curriculum is well received by students and well supported by clinical teachers. Both teachers and students felt that it meets the basic requirements, giving medical students a well grounded knowledge base in the common disorders of ageing.

UWA students felt that one of the main weaknesses in the existing curriculum was the online learning module and students at both universities had concerns about the structure of PBL's. In general, students did not report favourable opinions of online learning modules. They see them as a shift away from valuable face-to-face teaching time with a consultant or registrar.

Additional concerns were raised regarding the efficiency of the UWA WebCT online learning network. Students felt that for online learning modules to be effective the modules need to be locally relevant, current, relatively short, engaging, interactive and easy to access.

Students also expressed concerns about PBL's. While acknowledging that PBLs may be valuable "in theory", they did comment that PBL's are often not structured so as to engage interest and promote learning. The main criticisms related to large group size, tutor suitability and an ineffective structure that doesn't engage and maintain student interest. A good PBL was considered to be one where the teacher is well-prepared, one that is case-based and realistic, with clear learning objectives and where students are actively engaged in the process and encouraged to apply their learning.

Students felt that the current dementia curriculum could be improved by including more experiential (that is, face to face, clinical and case based) learning and by standardising the curriculum so that students receive the same teaching and similar exposure to PWD regardless of the hospital where they are based for their placement. Participants felt that such an approach would be more likely to help them develop skills in clinical assessment, investigation and management of cognitive disorders, an objective which is not consistently met at present. Concerns regarding the lack of standardisation between teaching sites were also raised by the academic consultants.

Like students, doctors and other stakeholders recognise the importance of experiential learning over and above what students might receive on ward rounds and bedside teaching. While this "teaching on the run" is a crucial aspect of student learning and a valuable opportunity for them to interact directly with consultants, it is often performed on an ad hoc basis and varies from consultant to consultant and from hospital to hospital, depending on the available clinical material. Other suggestions for increasing student access to experiential learning included building on the existing visit to Alzheimer's Australia by having students spend more time in memory clinics, visiting residential care facilities, day care facilities and participating in home visits with ACAT or other allied health teams. This may not only increase the students' exposure to PWD, but also give them further perspectives of what it is like to live with a cognitive disorder and the impact this has on the patients' carer and family. This could facilitate a more holistic view of the dementia journey.

5.2.2 Current Teaching and Learning Resources

Existing resources include educational videos covering a range of topics, including communication and assessment, available through a range of community based services, such as Alzheimer's Australia, the WADTSC, OT's and Speech Pathologists. However these are currently not recommended or made available to students in any systematic way.

The reference group felt that the introduction and use of guidelines for students on dementia diagnosis and dementia care would be an important step. This would give students an increased understanding of and experience in applying clinical guidelines. Having an understanding of clinical guidelines, their role and how they are used in clinical practice will give students an approach to an evolving field that will be constantly updated.

Some discussion also focussed around whether there would be potential to video multi-disciplinary team meetings, home visits or consultant assessments if not all students can

attend. This would allow those students whose timetables make it difficult to attend and experience these learning opportunities, to at least observe them at a later date.

5.2.3 Preferences for Curricular Content

While it was acknowledged that the current dementia curriculum is already quite educationally comprehensive, there were a number of areas in which participants felt there could be more emphasis. These areas included:

- pain recognition and pain management
- nutrition for PWD
- the recognition of dementia as a co-morbidity causing complications
- how to prevent complications and prevent recurrence of complications
- support services and resources available for both the carer and the patient
- pharmacological and non-pharmacological treatment
- cultural, ethnic and social issues and perspectives
- assessment tools in addition to the MMSE
- current research and new advances
- medico-legal issues, including assessment for consent and competency
- impact of dementia on the management of other medical conditions
- behavioural aspects of dementia and behavioural management
- multi-disciplinary care and management plans

The possibility of reinforcing what is learnt during the month-long 4th year geriatric placement by infusing dementia-related PBL's in 5th and 6th year rotations was an idea supported by both students and the reference group of stakeholders. There is already one PBL in Psychiatry (covering pseudodementia, dementia and delirium) and Palliative Care (covering neurodegenerative conditions, food, fluids and questions commonly asked by families), but there is a possibility to add dementia PBL's to General Medicine and General Practice rotations. Another possibility suggested is to split the curriculum into two parts, with the foundation and basics of dementia being taught in 4th year and high level discharge planning and multi-disciplinary care being a focus in 6th year when such topics may be more relevant to the student.

There is a general consensus that more emphasis needs to be placed on communication and practical experience in dementia diagnosis, assessment and management.

"I've noticed a lot of students get frustrated with dealing with patients with dementia because of the difficulty communicating. Or if students don't get frustrated, they become patronizing, using 'elder speak' and talking down to the patients. I think students need to have training in respecting patients with dementia as people. This probably would involve increased contact with patients and their carers, in both hospital and in the community setting". 4th year medical student

The impact of dementia on people from different cultural, ethnic and social backgrounds is an area also in need of emphasis in the new curriculum and some consideration should be given to adapting communication skills to these varying scenarios. However, specialists feel that communication and culturally appropriate care will develop as the students mature and may not need necessarily be 'taught' in the traditional sense, but rather nurtured during their training and encouraged through exposure to as many dementia patients and carers in as many experiential settings as possible.

5.2.4 Identification of Key Content Areas

It was agreed that all students need to have the same basic level of knowledge and experience, but noted that this is difficult to ensure as the teaching each group of students receives is dependent upon a number of factors. These include the hospital environment, the types of patients admitted, the interests and dedication of individual tutors and their commitment to and ability to teach. To some degree it is not possible to control for all of these variables, but by building more structure into the core content of the curriculum, there are opportunities to increase the similarity of students' educational experiences.

It was generally felt that the basic content already established in the dementia curriculum is quite adequate for 4th year level. Many felt that it was important to provide a broad picture of dementia in the limited time available, rather than focussing too greatly on individual areas.

Topics listed as potential key content areas included:

- What is dementia?
- Symptoms of dementia
- Special features and management of dementia sub-types
- Differentiation between delirium, dementia and other causes of altered mental state
- Ensuring a multi-disciplinary approach to dementia
- New research and advances in dementia diagnosis and treatment
- Future research directions
- Pharmacological and non-pharmacological treatments
- Assessment and assessment tools (including MMSE and others)
- History taking skills and how to assess a PWD
- Behavioural aspects of dementia, including management
- Support services and resources for patient, carer and family
- Understanding the effects of the dementia journey on the carer and/or family
- Special accommodation and management needs
- Awareness of memory clinics and other services for assessment
- Chronic problems of dementia and what to do when people decline
- Long term management and the role of residential care
- Acute inpatient assessment, differential diagnosis and management plan
- Ethical issues eg. Assessing functional capacity, consent and competence
- Development of emotional intelligence in addition to clinical expertise

5.2.5 Preferences for Curricular Structure and Delivery

Participants suggested that the focus of the new curriculum should be on case-based teaching, with an emphasis on practical, experiential learning via bedside teaching and through attendance at ward rounds, memory clinics, ACAT home visits and visits to residential care facilities. The overall theme should be on person, not disease, centred care.

“Theory is easy to acquire, and not much time needs to be spent on that. The majority of time should be on giving students opportunities to meet patients with dementia and their carers”. 4th year medical student

The practicality of fitting in visits to homes and care facilities was acknowledged as challenging in an already full curriculum. However, making these visits compulsory was felt likely to encourage student attendance and greatly enhance their learning and understanding

of dementia. The students who currently do attend memory clinics see the experience as a valuable learning opportunity, but not all students make time to attend. One way of overcoming this will be to make attendance compulsory and assessable. Having students document these visits in a case report logbook would not only be a way of ensuring participation, but also facilitating maximal learning. The reports might cover: synopsis of the carers/patients encountered, how they were managed, any medical problems in relation to dementia, history taking, notes on communication skills, outcomes, management plan, and structured reflection on what they learnt from each experience.

The half day visit to Alzheimer's Australia is considered a valuable component of the current UWA curriculum by both students and teachers, and should be retained in the future curriculum. These visits currently consist of a series of short lectures, including presentations from carers and people with dementia, a video presentation and the opportunity to ask questions and interact carers. Students learn first hand about the behavioural aspects of dementia, observe communication skills and have the opportunity to learn directly from the carers about the day to day experiences of a PWD. Depending on what other experiential learning opportunities are included in the new curriculum, there is the capacity to work more closely with Alzheimer's Australia in the design of these visits to make sure they continue to offer students a varied and valuable learning outcome.

One of the main challenges of the new curriculum will be to build structure into the teaching methods and learning objectives to ensure that students receive a similar level of training regardless of their Geriatrics placement site.

"I have had good teaching at Joondalup Health Campus and Osborne Park Hospital in geriatrics and psychiatry, which have helped with the theoretical aspects of learning about dementia, and also a degree of exposure to patients with dementia in the hospital, in patients' homes, and in low level and high level care facilities. Having a broad range of experience like that is important and has helped me learn more about patients with dementia, as compared to a student who spent four weeks in a psychogeriatrics ward and complained the whole time about seeing the same thing over and over again". 4th year medical student

5.3 Survey Results

5.3.1 Knowledge

Students from UWA and Notre Dame performed similarly on most knowledge items. Generally, a greater proportion of UWA students were able to select the correct answer for each question. UNDA students performed poorly compared to UWA students on several items relating to diagnostic procedures, clinical diagnosis and clinical reasoning. From a list of possible symptoms relating to clinical diagnosis, only 33.1% of UNDA students were correctly able to identify focal neurological findings as *not* supportive of a probable Alzheimer's diagnosis, compared to 68.1% of UWA students. This difference was significant with a p value of 0.006. Furthermore, only 62.5% of Notre Dame students correctly answered the question related to acute onset of confusion, compared to 91.4% of UWA students (p=0.028). However, in the question relating to adverse effects of antipsychotic pharmacotherapy, Notre Dame students performed better than those at UWA, although this result was not statistically significant.

UWA students were also more likely to identify why early evaluation of people suspected of having Alzheimer's disease is important, with 67.3% answering correctly, compared to 48.3% of UNDA students ($p = 0.052$). All students performed poorly on a question regarding the effect on orienting information on Alzheimer's disease patients, with only 34.5% of UWA and 29.3% of UNDA students answering correctly. Furthermore, only 46.4% of UWA and 45% of UNDA students correctly identified the average life expectancy of a patient with Alzheimer's as 5-12 years. In addition, only 51.8% of UWA students and 43.1% of UNDA students were able to correctly identify the three most common forms of primary degenerative dementia. Similarly, only around 50% of students were able to identify disorientation to date as the cognitive deficit most likely to occur first during the progression of Alzheimer's disease and microscopic examination of CNS tissue as the procedure required to make a definitive diagnosis.

Table 9.1 in Appendix 1 lists the full results for each knowledge item.

5.3.2 Attitudes

Baseline data showed that, as anticipated, teachers largely have positive attitudes towards older people. Responses of the students were less skewed towards strongly positive responses and tended to cluster around neutral to moderately positive responses. Teachers disagreed that if handled properly, elderly patients can be seen as quickly as any other patient, whereas students were more neutral on this topic, perhaps because they have less experience. Full results can be seen in Table 9.2 in Appendix 1.

5.3.3 Satisfaction with Current Curricula

Students were largely positive in their responses relating to satisfaction with the current curricula. In general they felt that the current curriculum provides them with adequate knowledge, skills and confidence to diagnose, treat and manage a patient with dementia. This includes communicating with families, carers, allied health care providers and community services, ability to deal with ethical and legal issues and an understanding of how cultural, ethnic and social issues apply to dementia.

However, responses from teachers were largely neutral to negative and they often disagreed that graduates were adequately skilled in communication and management of people with dementia and their families. Teachers indicated that more emphasis needs to be placed on skills development, across the board communication skills and exposure to people with dementia and their families in both hospital and community settings. Teachers also felt that the current curriculum does not provide students with an adequate understanding of and ability to coordinate multi-disciplinary care and community services in the care of PWD. Similarly, teachers felt that the curriculum does not produce graduates with an understanding of ethical, legal, cultural or social issues. Detailed results can be seen in Table 9.3 in Appendix 1.

5.3.4 Preferred Teaching Methodology and Educational Environment

Teachers were strongly in favour of virtually all suggested teaching methodologies and notably favoured increased face-to-face contact with people with dementia and their carers. Students' responses were more widely spread, but were generally in favour of all suggested learning methodologies. Thus both teachers and students favour a broad range of potential learning methodologies. Notably, over 20% of students thought that books or journal articles which can be read independently would be "useless". These results support the conclusion that students and teachers both strongly favour interactive case-based and experiential methodologies.

Around 70% of both teachers and students felt that locally relevant, case-based, interactive online learning modules would be useful in undergraduate dementia training. Innovative and interactive learning strategies such as an OSCE designed workshop, well-structured case-based PBL's and workshops on communication and behaviour management skills were also well received by both teachers and students. A large proportion of students (65%) and teachers (77%) also felt that case-based panel discussions involving a multi-disciplinary team of experts would be useful in dementia training. Both groups favoured workbooks that allow for reflective learning (77.3% teachers, 63.6% students) and lectures by local Geriatricians accessed either online (63.5% teachers, 66.1% students), or in a lecture hall setting (72.7% teachers, 84.2% teachers).

Both students and teachers strongly favoured teaching in a broad range of community and hospital environments. A classroom setting received the least support from teachers (36.4% compared to 71.4% of students) while students felt most unfavourably about the home setting as a learning environment (57.8% compared to 95.5% of teachers). Teachers and students were strongly supportive of community health care settings (95.5% of teachers and 77.2% of students), hospital/bedside settings (95.4% of teachers and 89.7% of students), memory clinic settings (90.9% of teachers and 80.9% of students) and residential care settings (81.9% of teachers and 70.1% of students). These results suggest that both teachers and students perceive value in utilising a number of different learning environments in dementia training, in particular those that encourage the acquisition of knowledge and skills through experiential learning.

5.3.5 Preferred Curricular Content

Students and teachers strongly endorsed virtually all areas of the suggested curriculum as being essential. Experience in memory clinics and other services for assessment and nutrition for people with dementia stood out as being perceived as less important, but were still considered as essential content by around 82% of students and 78% of teachers. Similarly, current research and new advances in dementia care were thought to be essential by around 86% of both teachers and students and the cultural, ethnic and social issues and perspectives relevant to dementia were considered an essential learning component by 80% of students and 86.4% of teachers. The main area where there was discrepancy between the perceptions of teachers and students related to the role of residential care, special accommodation and management needs in the care of people with dementia. While 95% of teachers thought this was important only 35% of students considered this to be an essential learning objective.

A list of the curricula content areas and the proportions of teachers and students who considered them essential can be found in table 9.4 in Appendix 1.

5.3.6 Preferred Assessment Strategies

Results from teachers and students were again broadly similar. Students were less likely to favour written questions (essay type), with only 30% of students favouring this assessment method, while 42% of teachers supported it. Similarly, written questions by way of 'turn page' exam received support from only 53% of teachers and students and multi-choice or matching type written questions were a favourable assessment methodology for 66.9% of students and 57.1% of teachers. The greatest support was for a mini-CEX (clinical examination exercise) with 83% of students supporting this and 86% of teachers. There was also strong consistent support for multi-source feedback (around 81% of both teachers and students), the OSCE (85% of teachers and 76.8% of students) and tutor ratings (71.4% of teachers and 68.1% of students).

5.3.7 Required Competencies

Results from students and teachers were broadly similar. Consensus was greater with regard to the desirable and essential competencies for graduating students and there was greater variation in regard to appropriate competencies for clinical students. This may be influenced by the fact that UNDA responders were largely in their first and second years.

There were greater discrepancies regarding competencies for clinical students. These largely focussed around communication with the patient and family, care planning and initial assessment. Communicating a diagnosis to a patient was considered an essential competency by 35.5% of students and only 15% of teachers. Similarly, explaining the diagnosis to the patient's carer and/or family was considered essential by 43.5% of students and 26.3% of teachers. Conversely, 57.9% of teachers felt that participation in a family meeting was an essential competency for a clinical student while only 24.7% of students agreed. Teachers were also more likely to consider participation in the care planning for the patient as essential competencies for clinical students, such as participation in multi-disciplinary team meetings and discharge planning (61.1% of teachers compared to 29.7% of students), planning the initial investigation of a person with cognitive impairment (63.2% of teachers versus 49.7% of students) and planning non-pharmacological care for a person with challenging behaviours or delirium (50% of teachers and 30% of students). In terms of initial examination and assessment, only 67.3% of students felt that it was essential for a clinical student to be competent taking a history from a person presenting with cognitive complaints compared to 84.2% of teachers and physically examining such a patient was considered essential by 75% of teachers and only 60.5% of students. Likewise, 68.4% of teachers, compared to 55.3% of students felt that it was essential for a clinical student to be competent to perform a cognitive assessment using validated tools.

Areas of discrepancy with regard to competencies for graduating students included participation in family meetings, where 62% of students thought this was essential compared to 82% of teachers. Similarly only 66% of students thought participation in multi-disciplinary team meetings was an essential competency for a graduating student compared to 82% of teachers. Finally, while 74% of students thought referral to community services

for a person with dementia was an essential competency for a graduating student, only 41% of teachers agreed.

Based on these results, a list of recommended competencies for clinical and graduating students is presented in Appendix 2.

6 Conclusions

6.1 Focus and Reference Group Feedback

Generally, there appears to be preference for a curricular framework that will standardise dementia teaching between sites. Such a framework would be more explicit about the minimum expectations regarding student participation in both PBL and non-PBL teaching, and experiential learning activities. The new curriculum should focus on the complete journey of dementia, legally, emotionally, culturally and socially, in addition to impact on family.

While many learning opportunities are currently available to students, they are not scheduled into the timetable or formalised in the curriculum and some students choose not to attend. Making these visits a formal part of the timetable and building formative assessments around them would be one way of increasing student exposure to valuable learning opportunities. Understanding the impact of dementia on both the patient and their families will help bring a crucial sense of realism to the theory learned in lectures, PBL's and online. This may facilitate attitudinal change, resulting in an increased sense of understanding, compassion and empathy.

Based on the results of discussion with stakeholders, development of new resources in dementia education might include a locally relevant online module, fact sheets on the availability of services designed to support PWD and their families, and student guidelines for dementia diagnosis.

There may also be the capacity to develop a resource listing websites, journal articles, new advances and current research, where students can go for more information. WebCT currently hosts journal articles on dementia, but this platform is not well-liked or well-used by students.

6.2 Survey Results

In summary, despite the different curricula of the two universities there did not appear to be systematic differences in the knowledge of Notre Dame and UWA students. This suggests that UNDA and UWA students are broadly similar at baseline. The findings are perhaps more striking given that responses were predominately from first and second year Notre Dame students and clinical year UWA students. Results appear to differ markedly from pilot results obtained from fourth year students who had just completed their UWA geriatrics attachment and who were able to select the correct answer more commonly. Further post-placement and final year data are required to determine whether there are differences in the knowledge of graduating students.

These results were surprising because in the focus group discussions Notre Dame students reported having minimal specific teaching on dementia. These results tend to support the hypothesis that the Notre Dame curriculum successfully integrates learning regarding dementia and the other principles of ageing. However, it is also possible that those studying the post-graduate medical course at UNDA have relevant prior learning which provides an understanding of dementia.

As the sampling strategy was incomplete it is possible that these results are not reliable. For example, participants in the focus group were largely fourth year students and the survey results (predominantly incorporating first and second year Notre Dame students) may be influenced by recent improvements to the Notre Dame curriculum. An alternative explanation of the results is that fourth year and fifth year UWA students may have a poor retention of information. This could lead to a decreased performance in this survey compared to the pilot results gathered from students who had recently completed their geriatrics attachment.

The evidence of dissatisfaction of teachers with the current curriculum was unexpected in light of the focus groups (where there seemed to be a strong consensus between teachers and students regarding the benefits of the current curriculum). The sample of teachers was much smaller, so these results may not be reliable. However these results suggest that further work needs to be done to understand the needs and preferences of teachers.

There is general consistency between the views of teachers and students regarding essential components of the curriculum. The results are challenging because they indicate support for a very broad curriculum in which multiple domains are considered essential. Both teachers and students favour face-to-face and practical methods of assessment, while there is less support for written assessments.

7 Recommendations

7.1 Scope of recommendations

The project engaged a range of stakeholders and achieved broad consensus with regard to findings and recommendations. However, despite continued efforts, representation of UNDA was sub-optimal and recommendations largely relate to a dedicated attachment in dementia. However each of the components of the new UWA curriculum will be suitable for stand-alone use or inclusion in other areas of the UNDA curriculum should they be required.

7.2 Specific Recommendations

Most recommendations focus on building more structure and standardisation into the current curriculum, ensuring that students have a more uniform exposure to dementia education independent of teaching site.

1. To maintain the 4 week UWA geriatric placement, with one week focussing on the theory, basics and background of dementia diagnosis and management.
2. To consider introducing a half-day “back to base” day in 6th year to reinforce 4th year learning about dementia. This would enable students to look more closely at communication

skills and practical management of patients with dementia. This would include discharge planning and multi-disciplinary care, pharmacological and non-pharmacological treatment, assessing legal competency and capacity and managing behavioural aspects of dementia.

The structure of the 6th year module would involve rotation through 3 one hour workshops.

- i) an OSCE designed scenario to test and reinforce their knowledge, skills and problem solving abilities relating to dementia diagnosis and management,
- ii) a case-based panel discussion with a multi-disciplinary team of experts to discuss discharge planning and long-term management and reinforce the importance of multi-disciplinary care in the support of PWD and their families
- iii) a communication skills workshop, including discussing sensitive topics with those from different social, cultural and ethnic backgrounds.

3. To introduce a Log Book for formative assessment and to ensure experiential learning and exposure to a range of patients and care environments. The log book will serve as a record of the student's formal and non-formal teaching in dementia.

4. To offer a systematic lecture on dementia that supports well structured case based PBL's, bedside teaching and community visits/clinic time.

5. To introduce a focus on attitudes towards ageing and the elderly into the 4th year curriculum. This would include discussions of age and ageing, normal and abnormal ageing and the idea that "age" is not necessarily related to chronological age. Different social, cultural and ethnic perspectives and attitudes towards ageing and dementia might also be covered.

6. To build on the 4th year students knowledge of and ability to use assessment tools in the investigative and diagnostic process for dementia. At present only the MMSE is taught formally and there is scope to introduce the students to a range of other assessment tools.

7. To develop brief guidelines for students on dementia diagnosis and early management.

8. To investigate the possibility of including dementia related PBL's in 5th year General Medicine and General Practice rotations, in order to reinforce what students learnt in 4th year.

9 Introduce teachers from allied health care professions to assist learning in multi-disciplinary care and communication.

10. Incorporate multi-source feedback and a mini-CEX completed with the student by the teacher in addition to current assessment methodologies. This recommendation is also in line with the current educational literature regarding appropriate assessment methodologies, which show that CEX are valid and reliable as formative assessments.[6-11] Training in feedback technique may be required for teachers.

11. To retain current skill based (OSCE) examination and consider a skill based assessment in the PGY1 year.

12. Collect further data regarding learning outcomes post implementation of new curricula

13. Review educational resource video's with regard to suitability for inclusion as recommended additional resources in the new curriculum.

14. Provide additional resources, including recordings of multi-disciplinary team meetings, home visits and consultant assessments.

In addition to providing the graduate with necessary knowledge and skills to diagnose and manage a person with dementia, the new curriculum should also focus on providing graduates with an understanding of the impact of dementia on the patient, family and carer and on providing support throughout the entire dementia journey. The focus of care for the person living with dementia should be to support their strengths and enhance or enable their abilities in order to increase their quality of life. This would encompass maintaining their participation in home and community life for as long as possible.

7.3 Learning Materials and Implementation Strategy

Curricular materials and assessments have been drafted, including

- a. Learning competencies and outcomes (Appendix 2: Sections 10.1-3)
- b. PBL and accompanying online self-directed learning module (Appendix 2: Section 10.4)
- c. Log book (Appendix 2: Section 10.5)
- d. Student guidelines (Appendix 2: Section 10.6)
- e. Mini-CEX (Appendix 2: Section 10.7)
- f. Standard lecture (Appendix 2: Section 10.8)

It is intended that the log book will form a record of the student's formal and informal teaching in dementia. Within the log book, students can record case reports for a number of different learning experiences (wards, memory clinic, residential care, home visit, Alzheimer's Australia, team meeting). They will be required to write about the specifics of each case as relevant to the person with dementia (including demographics, presentation, diagnosis, current complaints, other medical conditions (and if so, how these are complicated by cognitive impairment) and management including multi-disciplinary and follow-up care.

In addition, the student will also be required to make notes on communication skills and any difficulties that were faced (such as 'What approach did they or the health professional take?', 'What worked and what didn't?'). Cultural, ethnic and social issues can also be discussed if relevant. In the case of acute, home or residential care visits, the students may also make notes about the difficulties faced by carers, the level of support offered and the person's ability to perform ADL's. Finally, the student should take time for reflective learning. What did they learn from each experience? Were their current attitudes towards people with cognitive impairments revealed or challenged in any way? What did they learn about the realities of living with cognitive impairment or of caring for someone with cognitive impairment?

The PBL has been designed in order to support the content of the online module. It is case-based with a pre and post-module teaching template to support uniform teaching between sites. The PBL will address some of the curricular content gaps as identified in the focus groups. An element challenging students to think about their own attitudes towards ageing and pre-conceived ideas of cognitive impairment is included.

The online module that accompanies the PBL will be case-based, locally relevant, interactive and engaging. The concepts for the case-study and story board for the module have been drafted and the module itself is being developed as part of WACHA's "E-Ageing" project. The case includes a number of challenging aspects, utilising the history of a person from a different cultural background residing in a country area where access to care and support services is limited.

A standardised lecture has been produced. It is hoped that a 'back-to-base' opportunity will be possible so that all students will receive the same lecture from the same teacher. This lecture will also be available to download online, in the event that any students are unable to attend. The slides for the lecture itself will be available in a central repository to ensure that the same content can be delivered regardless of the presenter.

Recommendations were forwarded to the Undergraduate Curriculum Committee on 23 February 2009. The committee supported the curricular changes although had concerns about whether students would participate in aspects of the curriculum that were considered 'formative' rather than 'summative' assessment. This will be overcome by making students aware that participation in all 'formative' assessments will be required as part of their successful completion of the Geriatric Medicine attachment.

In future meetings, we will seek further advice regarding introduction of dementia teaching into PBL's in the General Practice and General Medicine rotations in 5th year and introducing the half day workshop in 6th year. The 6th year workshop will focus on multi-disciplinary care, management of PWD and communication skills, in addition to being a 'refresher course' of the key elements covered in 4th year.

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9 APPENDIX 1 - Survey Tables

Table 9.1 Medical student knowledge of dementia

The three most common forms of primary degenerative dementia are:	UWA (N=114)	UNDA (N=65)	<i>p</i> value
Alcohol-related dementia Alzheimer's disease, Vascular dementia	21.0	24.6	
Alzheimer's disease, Vascular dementia and frontotemporal dementia	22.0	21.5	
Alzheimer's disease, Vascular dementia and Lewy body disease	51.8	43.1	0.088
Depression, Dementia and Delirium	5.3	10.8	
In its early stages, dementia is often recognized by:	UWA (N=116)	UNDA (N=66)	
an inability to recognize familiar faces or familiar objects	3.4	4.5	
forgetfulness	81.0	71.2	0.080
inappropriate behaviour	0.9	4.5	
withdrawing from usual activities and interests	14.6	19.7	
All of the following are potentially treatable etiologies of dementia EXCEPT:	UWA (N=115)	UNDA (N=65)	
Fronto-temporal lobe disease	85.2	76.9	0.084
Normal pressure hydrocephalus	5.2	12.3	
Pernicious anemia	6.9	4.6	
Subdural hematoma	2.6	6.2	
When a patient develops a sudden onset of confusion, disorientation and inability to sustain attention, this presentation is most consistent with the diagnosis of:	UWA (N=116)	UNDA (N=64)	
Alzheimer's	3.4	14.1	
Delirium	91.4	62.5	0.028
Frontal Lobe dementia	5.2	14.1	
Major depression	0.0	9.4	
Which of the following condition(s) sometimes resembles Alzheimer's disease?	UWA (N=115)	UNDA (N=65)	
Delirium	6.9	10.8	
Depression	8.7	9.2	
Vascular brain disease	6.9	9.2	
All of the above	77.4	70.8	0.088

Which of the following tests is NOT necessary as part of the initial evaluation of a patient with possible Alzheimer's disease?	UWA (N=113)	UNDA (N=60)	<i>p</i> value
Protein electrophoresis	80.5	75.0	0.092
Serum electrolytes	6.2	11.7	
Thyroid function tests	8.8	8.3	
Vitamin B and folate levels	4.4	5.0	
Which of the following cognitive deficits is most likely to occur first during the progression of Alzheimer's disease?	UWA (N=115)	UNDA (N=61)	
Disorientation to date	56.5	49.2	0.094
Disorientation to place	15.6	19.7	
Inability to name common objects, such as a watch or a pen	21.7	27.9	
Inability to recognize a family member	6.1	3.3	
Which of the following procedures is required to make a definitive diagnosis of Alzheimer's disease?	UWA (N=114)	UNDA (N=63)	
CAT scan	10.5	23.8	
Microscopic examination of CNS tissue	54.4	41.3	0.069
Mini-Mental State Exam	16.7	8.0	
MRI	18.4	27.0	
Which of the following does NOT support the clinical diagnosis of probable Alzheimer's disease?	UWA (N=113)	UNDA (N=59)	
Focal neurological findings	68.1	33.1	0.006
Global deterioration	5.3	11.9	
No disturbance of consciousness	23.9	47.5	
Onset as early as 40 years old, most often after age 65	2.6	6.8	
Although the rate of progression of Alzheimer's disease is variable, the average life expectancy after onset is:	UWA (N=112)	UNDA (N=60)	
1-5 years	5.4	8.3	
5-12 years	46.4	45.0	0.113
12-15 years	34.8	35.0	
15-20 years	13.4	11.7	

Which of the following statements is true concerning the use of physical restraints with patients with Alzheimer's disease?	UWA (N=111)	UNDA (N=58)	<i>p</i> value
Restraints are usually necessary for patient safety	11.7	15.5	
Restraints can contribute to the development of physical health problems	74.8	72.4	0.098
Restraints reassure patients by preventing falls	8.1	10.3	
Restraints tend to calm agitated patients	5.4	1.7	
When someone with Alzheimer's disease begins to have frequent rigidity, one should suspect an adverse reaction from an:	UWA (N=112)	UNDA (N=60)	
Anticholinergic drug	50.0	35.0	
Anti-depressant	3.6	5.0	
Anti-psychotic	42.9	55.0	0.074
Anxiolytic drug	3.6	5.0	
A person suspected of having Alzheimer's disease should be evaluated as soon as possible because:	UWA (N=110)	UNDA (N=58)	
it is best to plan residential care early	2.7	8.6	
it is important to rule out and treat reversible disorders	67.3	48.3	0.052
prompt treatment of Alzheimer's disease may improve symptoms	4.5	12.1	
prompt treatment of Alzheimer's disease may prevent worsening of symptoms	25.4	31.0	
What is the effect of orienting information (ie. reminders of the date and the place) on Alzheimer's disease patients?	UWA (N=113)	UNDA (N=58)	
it has no lasting effect on the memory of patients	34.5	29.3	0.116
it increases confusion in approximately 50% of patients	8.8	15.5	
it produces semi-permanent gains in memory	29.2	29.3	
it will slow down the course of the disease	27.4	25.9	

Table 9.2 Attitudes towards elderly people – Students and Teachers

Attitudes	Students (x response)	Teachers (x response)
As people grow older, they become less organised and more confused	3.07	2.23
Elderly patients tend to be more appreciative of health care compared to younger patients	3.28	3.73
I tend to pay more attention and have more sympathy towards my elderly patients than my younger patients	2.93	3.73
If handled properly, the elderly patient can be seen as quickly as any other patient	3.01	2.62
If I have the choice, I would rather see younger patients than elderly ones	3.01	1.77
In general, old people act too slowly for modern society	2.34	1.64
It is interesting listening to old people's accounts of the past experiences	3.87	4.05
It is society's responsibility to provide care for its elderly persons	4.19	4.68
Medical care for old people uses up too much human and material resources	2.27	1.59
Most old people are pleasant to be with	3.65	3.91
Old people don't contribute their fair share towards paying for health care	2.11	1.50
Old people in general do not contribute much to society	1.91	1.36
Taking a history from elderly patients is frequently an ordeal	2.66	2.55
The federal government should reallocate money from aged care to research on AIDS, cancer or paediatric diseases	2.25	1.55
Treatment of chronically ill old patients is hopeless	2.0	1.27
Understanding my elderly patients is important to me as a person and as a health care provider	3.99	4.77

* Results are presented as an overall mean. The Likert Scale items were coded as 1 -5, where 1 = fully disagree and 5 = fully agree.

Table 9.3 Satisfaction with skills obtained in current curriculum: views of Students and Teachers

Current Medical Training:	Students (x response)	Teachers (x response)
Allows students to develop a sense of empathy, compassion and respect for people with dementia	3.15	3.18
Enables graduates to easily use and coordinate community services for people with dementia	3.20	2.68
Produces graduates with adequate skill in detection and diagnosing dementia	3.58	2.86
Produces graduates adequately skilled in communicating with multidisciplinary teams	3.73	3.05
Produces graduates adequately skilled in discussing dementia care and its management with people with dementia	3.46	2.59
Produces graduates adequately skilled in discussing dementia management with the family (or other informal carer/s) of people with dementia	3.46	2.68
Produces graduates adequately skilled in the management of a person with dementia	4.52	2.64
Produces graduates who can confidently deal with behavioural challenges in people with dementia	3.21	2.36
Produces graduates who can confidently deal with ethical and legal issues such as consent and capacity	3.45	2.36
Produces graduates with adequate understanding of how cultural, ethnic and social issues apply to dementia	3.39	2.45
Provides adequate exposure to caring for people with dementia in different settings such as memory clinics, day care centres, attending home visits and in residential care facilities	3.29	2.91
Provides adequate exposure to people with dementia	3.35	2.86
Provides adequate exposure to working with multi-disciplinary teams in the care of people with dementia	3.43	2.82
Provides adequate opportunities to communicate with people with dementia	3.43	2.91
Provides adequate opportunities to communicate with the family (or other informal carer/s) of people with dementia	3.14	2.77

* Results are presented as an overall mean. The Likert Scale items were coded as 1 -5, where 1 = fully disagree and 5 = fully agree.

Table 9.4 Essential Content in Dementia Curriculum

Curricular Content Area	Teachers (% who consider topic essential)	Students (% who consider topic essential)
A clear definition of dementia	95.5	100
Behavioural aspects of dementia	100	98.2
Behavioural management skills	95.5	94.1
Chronic problems of dementia and what to do when people decline	100	94.1
Communication skills with people with dementia	100	93.5
Cultural, ethnic and social issues and perspectives relevant to dementia	86.4	80
Current research and new advances in dementia care	85.7	85.9
Difference between delirium, dementia and other causes of altered mental state	100	97.6
Ethical issues eg. assessing functional capacity, consent and competency in people with dementia	90.9	91.1
Experience in memory clinics and other services for assessment	77.3	81.7
History taking skills when working with people with dementia	100	92.9
How dementia is assessed including assessment tools and functional assessment	100	95.9
Impact of dementia on other medical conditions	95.5	96.4
Long term management of people with dementia	100	96.4
Medico-legal issues, consent and competency relevant to dementia	86.4	89.9
Multi-disciplinary care and management plans for people with dementia	95.5	92.3
Non-pharmacological treatment of dementia	100	92.9
Nutrition for people with dementia	77.3	82.2
Pain recognition and pain management in people with dementia	100	94.1
Pharmacological treatment of dementia	86.4	98.2
Prevention of recurrence of co-morbidities in people with dementia	95.5	91.2
Role of residential care, special accommodation and management needs in care of people with dementia	95.2	85.2
Support services for patients with dementia, their carers & families	100	88.8
The role of allied health professionals in the management of dementia	95.5	91.1
Types of dementia	95.5	99.4

10 APPENDIX 2 - Proposed UWA Dementia Curriculum

10.1 Proposed Competencies

Dementia Care Competency	Clinical	Graduating
Chair a family meeting	D	D
Communicate a diagnosis of dementia, delirium or depression to a patient	D	D
Describe general principles of possible pharmacologic interventions for a person with challenging behaviours or delirium	D	E
Describe impact of ageing on Australian population demography	D	D
Discuss the goals of care with a person with dementia who is acutely unwell	D	E
Discuss the goals of care with the family of a person with advanced dementia	D	E
Establish a differential diagnosis for a person presenting with cognitive impairment	E	E
Explain a diagnosis of dementia, delirium or depression to a patient's family/carers	D	E
Participate in a family meeting	D	E
Participate in a multi-disciplinary team meeting and discharge planning for a person with dementia	D	E
Perform cognitive assessment using validated tools	E	E
Physically examine a person presenting with cognitive impairment	E	E
Plan initial investigation of a person presenting with cognitive impairment	E	E
Plan non-pharmacologic care for a person with challenging behaviours or delirium	D	E
Refer to community services for a person with dementia	D	D
Safely prescribe pharmacologic interventions for a person with challenging behaviours or delirium	D	E
Take a history from a person presenting with cognitive complaints	E	E
Understand general principles of prescription of cholinesterase inhibitors	D	E

10.2 Relationship of Proposed Competencies to Generic Learning and Graduate Outcomes

LEARNING OUTCOMES At the end of this unit the student will be able to:	GRADUATE OUTCOMES	MAPPING TO DEMENTIA COMPETENCIES
Work in partnership with older people considering the social and physical determinants of health and illness.	Provide effective and safe patient management	Discuss the goals of care with a person with dementia who is acutely unwell
Explain the aetiology, natural history, pathology and clinical features, management and prognosis for the common geriatric syndromes and common diseases of aging.	Apply knowledge of pathological and clinical features of disease.	Establish a differential diagnosis for a person presenting with cognitive impairment Plan initial investigation of a person presenting with cognitive impairment Understand general principles of prescription of cholinesterase inhibitors Describe general principles of possible pharmacologic interventions for a person with challenging behaviours or delirium
Discuss and demonstrate effective communication skills related to interactions with patients, health care professional and colleagues	Use effective communication skills and styles. Provide effective and safe patient assessment and management.	Participate in, or Chair, a family or team meeting Communicate a diagnosis of dementia, delirium or depression to a patient/their family Discuss the goals of care with the family of a person with advanced dementia
Demonstrate effective history, examination and presentation skills when working with older people.	Provide effective and safe patient assessment and management Perform and practice practical procedures effectively and safely.	Take a history from a person presenting with cognitive complaints Physically examine a person presenting with cognitive impairment Perform cognitive assessment using validated tools
Apply health promotion, maintenance, disease prevention approaches to the health of the ageing	Apply and evaluate health maintenance, promotion and disease prevention approaches to clinical practice	Describe impact of ageing on Australian population demography Refer to community services for a person with dementia
Discuss and use ethical and legal standards of practice.	Apply ethical behaviour to professional practice	Discuss the goals of care with the family of a person with advanced dementia

10.3 Proposed Specific Learning Outcomes

These specific learning outcomes provide detailed description of the knowledge and skills you need to have obtained by the end of this geriatrics attachment.

Work in partnership with older people, considering the social and physical determinants of health and illness, and the services available to older people in Australia

- Demonstrate a positive approach to old age and illness in old people
- Demonstrate positive attitudes towards ageing and discuss ageism and negative stereotypes
- Demonstrate positive attitudes towards people with dementia
- Demonstrate confidence and ability to communicate with people with dementia
- Demonstrate a dedicated focus on patient-centred care and a holistic approach to the treatment and management of dementia (people rather than diseases)
- Demonstrate the ability to discuss the goals of treatment and management of dementia with the patient and their family/caregiver
- Discuss roles and function of the multidisciplinary team
- Discuss the need for setting appropriate goals for management and monitoring the progress of patients in achieving these goals.
- Discuss the role and function of the aged care assessment team and the community support services that these teams access.
- Demonstrate knowledge of cultural, ethnic and social issues, particularly as they relate to dementia
- Discuss importance of access to community support services, both for the patient and the carer

Explain the aetiology, natural history, pathology and clinical features, management and prognosis for the common geriatric syndromes and common diseases of aging.

- Discuss the most common types of dementia in Australia
- Demonstrate the ability to establish a differential diagnosis for a person presenting with cognitive impairment (distinguish dementia from other common problems such as delirium and depression)
- Demonstrate ability to plan initial investigation of a person presenting with cognitive impairment
- Discuss the process for identifying dementia subtype
- Discuss the process for eliminating reversible causes of cognitive impairment
- Discuss the behavioural effects that may present throughout the course of illness and demonstrate knowledge of how these behaviours can be managed
- Discuss pharmacological treatment of Alzheimer's Disease
- Discuss the general principles of prescription of cholinesterase inhibitors
- Describe general principles of possible pharmacologic and non-pharmacologic interventions for a person with challenging behaviours or delirium

Discuss and demonstrate effective communication skills related to interactions with patients, health care professional and colleagues

- Demonstrate effective and compassionate communication skills with older people and their carers

- Demonstrate ability to communicate a diagnosis of dementia, delirium or depression to a patient/their family
- Participate in or chair a family meeting
- Demonstrate effective and professional communication skills with colleagues, including allied health professionals (the multidisciplinary team)
- Participate in or chair a team meeting
- Describe impact of ageing on Australian population demography
- Discuss the role of carers and demonstrate understanding of the importance of carer support and how this support can be assessed and maintained in the community

Demonstrate effective history, examination and presentation skills when working with older people (Geriatric Assessment).

- Demonstrate ability to take a history from a person presenting with cognitive complaints
- Demonstrate ability to interview a family member to complete patient history and determine any cognitive, personality or behavioural changes and any functional impairment
- Demonstrate ability to physically examine a person presenting with cognitive impairment
- Demonstrate ability to perform cognitive assessment using validated tools
- Demonstrate ability to perform functional assessment of an older person
- Discuss the concepts of impairment (pathologies), disability and handicap and how the assessment of all these domains is important in the management of older people.
- Discuss the individual roles of the multidisciplinary team and the importance of the multidisciplinary team in the comprehensive assessment and management of people with dementia.

Apply health promotion, maintenance, disease prevention approaches to the health of the ageing

- Demonstrate ability to refer to community services for a person with dementia
- Discuss the concept of iatrogenesis, considering the importance of issues such as polypharmacy in geriatric medicine

Discuss and use ethical and legal standards of practice.

- Discuss and use ethical and legal standards of practice
- Discuss principles of medical ethics, eg autonomy, risk-taking etc
- Discuss medical, social and ethical challenges that result from the care of people with dementia, such as consent and competency, ability to drive, need for residential care etc.
- Discuss the goals of care with the family of a person with advanced dementia, including wills, advance directives, and end-of life issues.

10.4 Problem Based Learning and Online Self Directed Learning Modules

10.4.1 Pre-PBL Tutorial: Notes for Tutors

Students will have already received background to and aetiology of dementias during the standard lecture. Some will have prior learning and this should be ascertained at the commencement of the session. The focus of the pre-PBL tutorial will be on diagnosis of dementia in order to provide students with adequate background knowledge to complete the online self-directed learning module. This is also an opportunity for you to distribute the **Student Guidelines for Dementia Diagnosis**.

The students have been given a copy of the discussion points for pre-PBL tutorial and should have taken time to reflect on each topic. Please encourage them to be actively engaged in the discussion rather than giving them required information in a didactic format. You might find it useful to base the pre-module discussion on a patient you have recently seen and encourage the students to work through each phase in reaching a diagnosis. You might discuss how results of laboratory tests, imaging and cognitive assessment would influence diagnosis.

Triggers for reflection that should be raised for discussion include:

- How to take a history from someone presenting with a cognitive complaint. Cover communication skills and what questions to ask of the patient and of the family member or carer.
- What is important in physically examining a person presenting with a cognitive complaint? What issues need to be considered when examining a patient?
- What initial laboratory tests will you order to help eliminate alternative causes of cognitive impairment and/or determine dementia subtype? How do you interpret these tests?
- What imaging should be ordered and why? How are CT and MRI scans interpreted? What are you looking for?
- What tools will you use for cognitive assessment and why? What can influence results of these assessment tools?
- Establish a differential diagnosis: Put all the pieces together to establish the diagnosis. What was significant in the history? What did the physical examination and laboratory tests show? Imaging? Cognitive assessment results? What is the most likely cause of cognitive impairment?

10.4.2 Dementia PBL and SDLM - Learning Objectives

1. Understand the process of taking a history from a person presenting with cognitive complaints. This includes the ability to ask appropriate questions of patient and family.
2. Identify symptoms required to make a clinical diagnosis of Alzheimer's Disease based on the DSM IV diagnostic criteria. Establish a differential diagnosis for someone presenting with cognitive impairment.
3. Plan initial investigations by identifying the most appropriate laboratory tests for eliminating other causes of cognitive impairment and establishing type of dementia likely.
4. Plan, conduct and interpret cognitive assessment. Understand the advantages and disadvantages of assessment tools.
5. Understand the process of communicating a diagnosis of dementia, delirium or depression and the implications of this diagnosis, to the patient and their family/carers.
6. Consider the implications of communicating with a PWD who is also of NES background and how this might affect communication strategy with the patient. Develop an understanding of effective communication skills related to interactions with patients, families and carers.
7. Explore and develop an understanding of the cultural, ethnic and social issues associated with dementia, particularly in the case where the patient is of NES background.
8. Become familiar with the process of chairing a family meeting and establishing a care plan.
9. Develop an understanding of the legal and ethical issues in treating a patient with dementia. Consider wills, consent and competency, and end-of-life issues.
10. Develop an understanding of the importance of multidisciplinary care in the management of PWD. Identify who should become involved in the patient's care and understand how to access these services.
11. Develop an understanding of the difficulties faced regarding access to care and support services in country areas and how this might be overcome.
12. Develop an understanding of the establishment of care plans and how to create a management plan that maximises quality of life for the patient and the carer/s.
13. Understand the role that medical and health care workers play in providing carer support throughout the journey of dementia and how this is achieved.

10.4.3 Dementia Online Self-Directed Learning Module

Case Study Part 1

Henry Zheng is a 71 year old retired dentist from China. Henry and his wife Liane arrived in Australia 8 years ago upon their retirement. At this time, they did not speak conversational English well, but this improved with the help of ESL programmes at their local community centre. The Zheng's migrated to Australia in order to live with their daughter May and her family in the country town of Narambeen. They occasionally help out in the Chinese restaurant she runs with her husband. Henry enjoys gardening, golf, playing mahjong, social dancing and crossword puzzles.

Henry's wife has accompanied him to this visit. She reports that Henry has been increasingly forgetful over the last few months, although he thinks she is overreacting. He does admit that once or twice he had forgotten regular social engagements, such as his golf or mahjong nights, but attributes this to just a part of getting older. Liane also reports that Henry seems to be having more and more trouble finding the words to complete his crossword puzzles and is always asking her, 'what is the word for...?' Previous to this he took great pride in completing all his puzzles without any help. He has also stopped suggesting they go to dance at the local hall as often as usual and when prompted on this, he says it's because he's tired after helping in the restaurant (although they play a very small role in the business now) or that he has work to do around the house or in the garden.

Case progression

1. Interview Henry and Liane and ask questions about Henry's medical history, current state of health, concerns with memory, daily functioning and social interactions.
2. Physically examine Henry to determine his current state of health. Review results and comment on their impact on the current situation.
3. Request laboratory tests to help eliminate other causes of cognitive impairment and determine most likely cause of memory problem. Review results and comment on their impact on the current situation.
4. Review available assessment tools used in the diagnostic process for dementia and discuss the advantages and disadvantages of each. Select appropriate tools and interpret test results. Could Mr Zheng's level of education effect his test result on these measures? What else might effect them? How should results be interpreted in light of this?
5. Determine differential diagnosis based on available evidence. Consider the DSM IV diagnostic criteria. What, if any, medication does the patient require? Do you need to refer the patient for a specialist consult at this time? eg. Geriatrician, Neuropsychologist etc. What are the implications of this based on the remote location?
6. Communicate result to patient and family. Discuss communication strategy. Mr Zheng is of NES background and in recent years has spoken more and more Chinese with his wife and family. What special steps might need to be taken in order to ensure that Mr Zheng has fully understood his diagnosis? Is an interpreter required? If so, are there any difficulties in translation? How might this impact on your communication with the patient and his family? What other cultural, ethnic or social issues might you need to consider regarding this diagnosis?
7. Mr Zheng's family are having a little trouble with the potential diagnoses and their implications, since he is still functioning quite well in his general life. They may benefit from talking to a social worker, but the nearest one is located at the regional

hospital 100km away. Discuss the importance of multi-disciplinary care in the management of dementia and difficulty of accessing these services in country areas. How can these difficulties be overcome?

8. Mr Zheng's daughter is concerned about the implications of her father's diagnosis. She is wondering if it is genetically inherited and whether her and her children are also at risk? Discuss these issues with May. What information will you give her? She and her mother are also insistent on caring for Mr Zheng at their home, as is customary in their culture. What carer support services are available and how can these be accessed in country areas? Are there alternatives?
9. Chair a family meeting to discuss long term care plan. Create a management plan that maximises quality of life for the patient and his carer/s. What legal and ethical issues will also need to be covered? Discuss consent and competence etc.
10. Mr Zheng re-presents with increasing agnosia and dyspraxia, is more frequently mixing up Chinese and English words in conversation and has withdrawn from more of his usual activities. He recently got lost on the way from their home to the restaurant.
11. Re-assess Mr Zheng's physical health and order further laboratory tests as necessary. Re-conduct MMSE and any other assessment tools as necessary, including Geriatric Depression Scale (GDS).
12. Review Mr Zheng's medication. Does it need to change?
13. Continue to assist and provide information and support to Mrs Zheng and May throughout the dementia journey. How are they coping with Mr Zheng's decline? Do they need additional home care support? How can you arrange this if necessary?
14. Mr Zheng appears unable to do some of the activities he previously enjoyed in addition to losing the abilities to perform some of the basic activities of everyday life. How will you enhance his retained abilities and support his limitations in order to maximise his quality of life? What multi-disciplinary care team members might be able to assist in this? How can they be accessed?
15. Comment on what you consider to be the most important aspects of fostering positive attitudes towards people with cognitive impairment and how you can achieve respectful, gentle and supportive patient-centred care.

10.4.4 Post-PBL Tutorial: Notes for Tutors

The students have been given a copy of the discussion points for post-PBL tutorial and should have taken time to reflect on each topic. Please encourage them to be actively engaged in the discussion rather than giving them all the information they need in a didactic format. The post-module discussion should focus primarily on the case study presented in the online SDLM and students should reflect upon this case when considering each of the discussion topics.

Triggers for post-PBL reflection include:

- Focus primarily on communicating a diagnosis of dementia to the patient and their family. Consider not only communicating with people of NES background, as was the case with the Zheng's, but communication in general.
- Talk through a family meeting with the Zheng's. Who would be involved? How would you approach it? What would you discuss? What are the goals of a family meeting?
- What are the most important legal and ethical issues in a case such as this?
- Discuss ethnic and cultural issues as they relate to dementia. Cultural issues regarding long-term care, end-of-life and dealing with the diagnosis. How did these issues relate to Mr Zheng?
- How can you assess the needs of the carer/family and ensure they have access to adequate support services? What are the implications for people living in remote country areas? Reinforce that supporting and enhancing the quality of life for the carer is as important as looking after the patient.
- Reinforce the importance of multi-disciplinary care in the management of dementia. What roles might the various disciplines play in the case of the Zhengs? How might these be accessed?
- What are the student's attitudes to older people? People with cognitive impairment?

10.5 Student Log Book

Medicine Year 4 2009
(IMED4492)
Medicine Specialty Geriatric Medicine

Students are to hand in their log book (in complete form) at the end of their Geriatrics term to the Administrator at the hospital of attachment.

Name: _____ Student Number: _____

DEMENTIA LOG BOOK Check List

Case	Brief Case Description	Date completed	Comments
Ward patient 1			
Ward Patient 2			
Ward patient 3			
Ward patient 4			
Memory Clinic			
ACAT home visit			
Residential Care			
Alzheimer's Australia			

*****!!IMPORTANT NOTE!!*****

This pilot log book has been developed as part of a project designed to improve the current dementia education curriculum at UWA and UNDA. As such, all case studies focus specifically on cognitive impairment. This is not intended to suggest that dementia is more important than any of the other topics covered in your Geriatric Medicine term. Once piloted, if useful the log book may be expanded to a broader range of geriatric syndromes.

INTRODUCTION

Clinical attachments offer a wide range of experiences and opportunities for learning. However, if the School and you, the student, don't have a strategy to approach your learning, recognise opportunities, then reflect on your learning, the learning experience will not be as rich.

The Geriatric Medicine attachment in Year 4 will consist of a four-week clinical attachment. A Self Directed Learning Module (SDLM), ward tutorials and activities, lectures, PBL's and community visits are arranged at each teaching hospital.

An outline of the IMED4492, including learning objectives is provided in your Unit Guidebook. This log book relates specifically to your learning about dementia throughout your Geriatric Medicine Clinical Placement.

The purpose of this logbook is to:

- Provide a record of your formal and informal teaching regarding dementia;
- Allow you to record case reports for each learning experience;
- Encourage reflection on your clinical learning;
- Encourage reflection on less tangible issues, such as communication skills and attitudes towards ageing and people with cognitive impairment;
- Provide material to allow you and the School to determine if you have met the outcomes for the Unit.

In this log book, you will be required to write reports on the following:

- Four clinical cases where the patients may be in various stages of cognitive decline;
- One team meeting;
- One visit to a memory clinic;
- One visit to a residential care facility;
- One home visit;
- One visit to Alzheimer's Australia.

Access to a variety of learning environments will not only greatly increase your exposure to PWD, but also allow you to experience first hand the realities of the impact of dementia on both the patient and their families, thus providing a more holistic view of the dementia journey. It is hoped that these sessions will also promote the development of respect, compassion and empathy for people living with dementia and increased focus on patient centred care.

Problem-based learning (PBL) cases and tutorials, lectures and an SDLM will form the basis for additional learning opportunities in the area of cognitive impairment. Refer to your Unit guidebook for further advice.

LOGBOOK – CLINICAL CASES

The purpose of this logbook is to

- Guide your clinical activities
- Encourage reflection on clinical cases
- Provide a basis for your assessment – Logbook Review
- Provide a basis for feedback on progress – periodic review by your Clinical Tutor

You should participate in the following steps and record your experiences in your log book.

- Take a history, including medical, social and psychological issues
- Perform and/or observe a physical examination and discuss the findings
- Plan investigations and review results. Interpret these results in light of the patients current medical condition
- Plan and/or review other relevant test results as appropriate. These might include imaging, allied health assessment and/or cognitive assessment. Interpret these results in light of the patients current medical condition
- Formulate a differential diagnosis and justify your reasons for this
- In collaboration with your clinical tutor, devise an appropriate treatment and management plan. Discuss the important aspects of the plan and the reasons these were chosen. Consider the role of multi-disciplinary care. What role will they play in the management plan for this patient and why is it important?
- Follow the patient's progress for as long as possible and make notes on this in your log book, referring back to the original treatment/management plan. Has it been successful? What, if any, changes might need to be made? Consider why these plans are important.
- Discuss issues for reflective learning. Here you might reflect on communication skills. What did you learn about communicating with people with cognitive impairment? What strategies worked or did not work? What approaches did your clinical tutors take? You might also discuss how this experience affected you personally. Did it affect your attitudes towards elderly people or people with cognitive impairment? Do you have a better understanding of the realities of living with dementia? If so, how have your attitudes/thoughts/feelings changed and what impact will this have on your interactions with elderly people and specifically those with dementia, in the future?

Remember that different cases may have a different focus (eg diagnosis, management, investigations), so you will need to account for this in your reports. You should aim to see 4 patients with either suspected or diagnosed dementia throughout the four weeks.

Clinical Case 1

<u>Brief Patient History</u>	
<u>Physical Examination</u>	
<u>Laboratory Test Results</u>	
<u>Other Tests Results (eg, imaging, functional or cognitive assessment)</u>	
<u>Differential Diagnosis</u>	
<u>Treatment and/or management plan</u>	
<u>Reflective Learning</u>	
Student Signature:	Patient Signature:
Student Number:	Patient Unit No:
Today's Date:	- NO STICKERS -

Clinical Case 2

<u>Brief Patient History</u>	
<u>Physical Examination</u>	
<u>Laboratory Test Results</u>	
<u>Other Tests Results (eg, imaging, functional or cognitive assessment)</u>	
<u>Differential Diagnosis</u>	
<u>Treatment and/or management plan</u>	
<u>Reflective Learning</u>	
Student Signature:	Patient Signature:
Student Number:	Patient Unit No:
Today's Date:	- NO STICKERS -

Clinical Case 3

<u>Brief Patient History</u>	
<u>Physical Examination</u>	
<u>Laboratory Test Results</u>	
<u>Other Tests Results (eg, imaging, functional or cognitive assessment)</u>	
<u>Differential Diagnosis</u>	
<u>Treatment and/or management plan</u>	
<u>Reflective Learning</u>	
Student Signature:	Patient Signature:
Student Number:	Patient Unit No:
Today's Date:	- NO STICKERS -

Clinical Case 4

<u>Brief Patient History</u>	
<u>Physical Examination</u>	
<u>Laboratory Test Results</u>	
<u>Other Tests Results (eg, imaging, functional or cognitive assessment)</u>	
<u>Differential Diagnosis</u>	
<u>Treatment and/or management plan</u>	
<u>Reflective Learning</u>	
Student Signature:	Patient Signature:
Student Number:	Patient Unit No:
Today's Date:	- NO STICKERS -

LOGBOOK – TEAM MEETING

The purpose of this logbook case report is to:

- Enhance your participation in clinical activities
- Encourage reflection
- Provide a basis for your assessment – Logbook Review
- Provide a basis for feedback on progress – periodic review by your Clinical Tutor

You should participate in the team meeting and record your experiences in your log book.

- What is the process for a team meeting? Who attends and why are they important?
- Briefly summarise what was discussed at the team meeting
- Discuss the role of multi-disciplinary care. What role do they play in the management plan of patient's with dementia and why is it important?
- How can allied health teams be accessed? When do you know if an Allied Health Assessment is necessary for a patient?
- Discuss treatment and management plans. Why are these important and how can all professionals involved in the care plans stay informed and updated on the patient's progress?
- Discuss issues for reflective learning. Here you might reflect on communication skills. What did you learn about communicating with people with cognitive impairment? Did you obtain any new knowledge or skills as a result of attending the meeting or did it expand on your understanding of any particular issues? If so, describe these. You might also discuss how this experience affected you personally. Did it affect your attitudes towards elderly people or people with cognitive impairment? Have your attitudes/thoughts/feelings changed and what impact will this have on your interactions with elderly people and specifically those with dementia, in the future?

Team Meeting

<u>About the Team Meeting</u>	
<u>Summary of meeting</u>	
<u>Role of Multi-disciplinary Care</u>	
<u>Allied Health</u>	
<u>Treatment and/or management plan</u>	
<u>Reflective Learning</u>	
Student Signature:	Patient Signature:
Student Number:	Patient Unit No:
Today's Date:	- NO STICKERS -

LOGBOOK – MEMORY CLINIC

The purpose of this logbook case report is to:

- Enhance your participation in clinical activities and your knowledge of cognitive assessment
- Encourage reflection
- Provide a basis for your assessment – Logbook Review
- Provide a basis for feedback on progress – periodic review by your Clinical Tutor

You should participate in at least one memory clinic and record your experiences in your log book.

- Select one patient that you observed in the memory clinic and record a brief patient history, including medical, social and psychological issues. Are their memory issues affecting their daily functioning? If so, how and to what extent?
- What investigative tests are ordered? These sometimes include a CT scan of the brain, neuropsychological assessment, blood tests, electrocardiogram, chest X-ray and electroencephalogram (EEG). If you happen to be at the clinic when these results are discussed, include these in your report and interpret them in light of the patient's current medical condition.
- What cognitive assessments were performed? What were the results and what do these mean?
- If you were present for any meetings where the results are communicated to the patient and their family, comment on how the results were communicated? What approach did the health professional take? What did you learn about communicating with people with cognitive impairment and their families?
- Discuss the recommendations for further treatment and management. What was suggested? Discuss the important aspects of the plan and the reasons these were chosen. Why are these plans so important?
- Consider the role of multi-disciplinary care. Was the patient or their carer seen by any members of the allied health team? If so, why and what is the importance of this? What role will they play in the management plan for this patient and why is it important?
- Discuss how this experience affected you personally. Did it affect your attitudes towards elderly people or people with cognitive impairment? Do you have a better understanding of the realities of living with dementia, for both the patient and their family? If so, how have your attitudes/thoughts/feelings changed and what impact will this have on your interactions with elderly people and specifically those with dementia, in the future?

Memory Clinic Visit

<u>Brief Patient History</u>	
<u>Investigations</u>	
<u>Cognitive Assessment</u>	
<u>Communication Skills</u>	
<u>Treatment and/or management plan</u>	
<u>Role of Multi-disciplinary Care</u>	
<u>Reflective Learning</u>	
Student Signature:	Patient Signature:
Student Number:	Patient Unit No:
Today's Date:	- NO STICKERS -

LOGBOOK – RESIDENTIAL CARE

The purpose of this logbook case report is to:

- Enhance your understanding of residential care and other community care and support facilities.
- Encourage reflection
- Provide a basis for your assessment – Logbook Review
- Provide a basis for feedback on progress – periodic review by your Clinical Tutor

You should participate in at least one residential care visit and record your experiences in your log book.

- What did you learn in terms of knowledge? Why is this important?
- What did you learn in terms of skills? Why is this important?
- Briefly discuss the patient's you met during your visit. What were the reasons for their admission to residential care? What level of care did they require? How was this care provided?
- Discuss how an admission to a residential care facility might affect the patient and their families and what can be done to ensure quality of life for all involved?
- Is the facility able to support and enhance retained abilities or do they offer any other forms of supportive therapies (such as pet therapy, music therapy, art therapy, exercise, social activities etc). Why are these important?
- Discuss issues for reflective learning. Here you might reflect on communication skills. What did you learn about communicating with people with cognitive impairment? What strategies worked or did not work? What approaches did carers at the care facility take?
- Discuss how this experience affected you personally. Did you attain any new knowledge or skills? Did it affect your attitudes towards elderly people or people with cognitive impairment? Do you have a better understanding of the realities of living with dementia in a residential care setting? If so, how have your attitudes/thoughts/feelings changed and what impact will this have on your interactions with elderly people and specifically those with dementia, in the future?

Residential Care Visit Report

<u>Knowledge attained</u>	
<u>Skills Attained</u>	
<u>Patient Summaries</u>	
<u>Quality of Life Issues</u>	
<u>Supportive Therapies</u>	
<u>Reflect on Communication Skills</u>	
<u>Reflect on Personal Attitudes and Understanding</u>	
Student Signature:	Patient Signature:
Student Number:	Patient Unit No:
Today's Date:	- NO STICKERS -

LOGBOOK – ACAT HOME VISIT

The purpose of this logbook case report is to:

- Enhance your understanding of ACAT and the realities of living with dementia for both the patient and the carer.
- Encourage reflection
- Provide a basis for your assessment – Logbook Review
- Provide a basis for feedback on progress – periodic review by your Clinical Tutor

You should participate in at least one home visit and record your experiences in your log book.

- Briefly discuss the case and reason for home visit
- Observe and describe the process for ACAT home visits. That is, what happens during the visit?
- How are the ACAT assessments performed? Comment on the results as relevant to the case
- What advice was given? Discuss the important aspects of the care plan and the reasons these were chosen
- Was carer support recommended? If so, what services were suggested and why were these considered important?
- Did the ACAT assessor recommend involvement of any other multi-disciplinary care team members? If so, what role will they play in the management plan for this patient and why is it important?
- Reflect on communication skills. What did you learn about communicating with people with cognitive impairment? What strategies worked or did not work? What approaches did the ACAT assessor take?
- Discuss how this experience affected you personally. Did you attain any new knowledge or skills? Did it affect your attitudes towards elderly people or people with cognitive impairment? Do you have a better understanding of the realities of living with dementia in a home setting? If so, how have your attitudes/thoughts/feelings changed and what impact will this have on your interactions with elderly people and specifically those with dementia, in the future?

Home Visit Case Report

<u>Case Notes</u>	
<u>Process of ACAT home visit</u>	
<u>ACAT Assessment</u>	
<u>ACAT Advice</u>	
<u>Carer Support</u>	
<u>Involvement of Multi-disciplinary Care</u>	
<u>Reflect on Communication Skills</u>	
<u>Reflect on Personal Attitudes and Understanding</u>	
Student Signature:	Patient Signature:
Student Number:	Patient Unit No:
Today's Date:	- NO STICKERS -

LOGBOOK – ALZHEIMER’S AUSTRALIA

The purpose of this logbook case report is to:

- Enhance your understanding of dementia from the carer’s point-of-view and how management and care of people with dementia can be improved.
- Encourage reflection
- Provide a basis for your assessment – Logbook Review
- Provide a basis for feedback on progress – periodic review by your Clinical Tutor

You should attend the scheduled visit to Alzheimer’s Australia and record your experiences in your log book.

- What did you learn in terms of knowledge? Why is this important?
- What did you learn in terms of skills? Why is this important?
- Consider the management and care of people with dementia. How can we ensure that care plans best enhance the quality of life for both the patient and the carer?
- Reflect on communication skills. What did you learn about communicating with people with cognitive impairment? What strategies worked or did not work? What approaches did the carers take?
- Discuss how this experience affected you personally. Did it affect your attitudes towards elderly people or people with cognitive impairment? Do you have a better understanding of the realities of living with dementia? If so, how have your attitudes/thoughts/feelings changed and what impact will this have on your interactions with elderly people and specifically those with dementia, in the future?

Alzheimer's Australia Workshop Report

<u>Knowledge attained</u>	
<u>Skills Attained</u>	
<u>Management and Care for People with Dementia</u>	
<u>Carer Support</u>	
<u>Reflect on Communication Skills</u>	
<u>Reflect on Personal Attitudes and Understanding</u>	
Student Signature:	Patient Signature:
Student Number:	Patient Unit No:
Today's Date:	- NO STICKERS -

10.6 STUDENT GUIDELINES FOR DIAGNOSIS OF DEMENTIA

What is dementia?

Dementia is characterised by a gradual, sometimes stepwise, deterioration in a person's cognitive, physical and social functioning. It is diagnosed through clinical evaluation, cognitive assessment, basic laboratory evaluation and imaging.

Diagnosis of Dementia

Effective diagnosis of dementia involves:

1. History and Functional Assessment
2. Physical Examination
3. Investigations
4. Cognitive Assessment

Aim

When the possibility of dementia has been raised, the medical practitioner's role may include:

1. Determine a differential diagnosis
2. Eliminate alternative causes for altered cognitive state
3. Consider dementia sub-type
4. Determine the severity and extent of impairment, activity limitation, and participation
5. Evaluate any co-morbidity
6. Assess family and social support and environment

Importance of Early Diagnosis

The ability to diagnose dementia early is important because:

1. A small subset may be treatable and reversible, or due to an alternative diagnosis
2. It is possible to focus on improving lifestyle and reducing risks
3. Symptomatic therapy may be helpful
4. It is possible to provide information and support to the carer and family
5. The patient may still be able to provide consent and be competent to make decisions regarding their treatment and management

1 Steps in Diagnosis

1.1 History

This should include assessment of:

- full clinical history
- Interviews with patient and family, conducted together and separately if possible
- ability to undertake daily activities

If possible, obtain the history from a reliable informant as well as from the patient. Key points are the areas of cognition affected, especially compared with previous function and skills, and the mode of onset and progression. Vascular risk factors, any recent head trauma and family history of dementia should also be ascertained. Examples of cognitive impairment are useful eg. becoming lost in a familiar area; forgetting how to use familiar household objects or appliances (suggests apraxia); not recognising objects (suggests agnosia); not being able to plan and prepare a meal (suggests a disorder of executive function).

Speaking with a family member may be necessary to ascertain whether the memory complaint represents a consistent change from the previous level of function. A family member will also be able to determine whether there has been any early personality or behavioural changes. Functional impairment and the patient's ability to perform activities of daily living are also best assessed by speaking to the family. This interview is also an opportunity to get an idea about family support systems, which may prove crucial in the future management of the patient.

1.2 Physical Examination

A complete and thorough physical examination should be conducted. This should be directed towards finding evidence for:

- specific conditions which may cause dementia (stroke, Parkinson's disease, cerebrovascular disease, hypothyroidism)
- Underlying chronic conditions which may aggravate dementia (hypertension, cardiac failure, renal failure, diabetes, amnesia)
- conditions which may cause delirium (respiratory or renal infection)

It is also important to assess the patient's level of consciousness as, if impaired, this may be suggestive of delirium.

1.3 Investigations

Potentially reversible or partly reversible, causes of dementia do exist and it is important to investigate these in the diagnostic process. Such investigations can also aid in ruling out other co-existing pathology.

1.3.1 Laboratory tests

- FBP (to rule out anaemia)
- U&E (to rule out hypo and hypernatremia)
- TFT (to rule out hypothyroidism)
- B12 and folate levels (low levels may impair cognitive function)
- Syphilis serology (only if specific indicators)
- ESR
- Urinalysis (WBC, protein, sugar). Culture if delirium.
- Calcium (to rule out hypercalcemia)
- BSL (to rule out hyperglycemia)
- +/- lumbar puncture
- EEG if indicated
- CXR (if delirium)

1.3.2 Imaging

The use of structural imaging tests such as CT or MRI, can rule out other causes of cognitive decline such as subdural haematoma, normal pressure hydrocephalus or neoplasm. These tests may be normal in people with dementia, may show focal or general atrophy or may show other relevant abnormalities.

Structural brain imaging (CT or MRI) should be considered for most patients. Functional imaging such as SPECT or PET can be helpful in investigating early or atypical cases

Both laboratory tests and structural imaging can rule out treatable causes of dementia and also help determine dementia sub-type.

Adapted from Eastly R., Assessment of Dementia, in *Dementia*, Eds Burns, O'Brien and Ames and Watson JD. 2001. Disorders of Memory and Intellect. *Medical Journal of Australia*. 175; 433-437.

1.4 Cognitive Assessment

The Mini-Mental State Examination (MMSE), Clock Drawing Test and similar short instruments are screening tests only. Lower MMSE scores correlate with a higher likelihood that dementia is present. The opposite is true for the Clock Drawing Test. Early dementia is sometimes not picked up by MMSE, but with addition of the Clock Drawing Test, detection is improved.

1.4.1 MMSE

- is well known for reliability and validity
- does not measure some of the early signs of dementia
- Focuses on memory (eg does not assess frontal functions well)
- culturally specific
- influenced by schooling

1.4.2 Clock Drawing Test

- offers simple, valid and reliable screen of executive function cognitive processes used to carry out everyday tasks requiring a correct sequence of events and self-monitoring behaviour
- executive function deficit may precede or be concurrent with short term memory difficulties, which are often assumed to be the primary indicator of early dementia.
- executive function deficit is included in the DSM IV diagnostic criteria for dementia

It is ideal to conduct both tests in conjunction as this offers an efficient assessment of early dementia.

When conducting cognitive tests it is important to take into account other factors that may affect performance, including educational level, skills, prior level of functioning and attainment, language barriers, advanced age, sensory impairment, cultural factors, psychiatric illness and physical or neurological problems. These issues should be considered when interpreting the results.

1.4.3 Neuropsychological Tests

Dementia present for some time may not need specialised neuropsychological assessment. However, formal neuropsychological testing is valuable early in the course of dementia, or if there are unusual features, with dementia in a younger person, or where there is the possibility of depression or other differential diagnosis.

2 Aims of Diagnosis

2.1 Establish a Differential Diagnosis

Using the available evidence from your assessment, dementia must be distinguished from other conditions, particularly normal ageing, delirium, depression and drug effects. The table below gives markers for differentiating between dementia, delirium and depression.

Feature	Delirium	Dementia	Depression
Onset	Acute	Insidious	Acute or subacute
Time Course	Fluctuates during single day	Worsens over lengthy time; cognitive loss precedes depression; behaviour worse at night	Depression precedes cognitive loss
Duration	Hours to weeks	Months to years	Weeks to months; often prior history
Attention	Impaired	Little affected; impaired in later stages	Unimpaired
Orientation	Usually impaired in time, often place, sometimes person	Impaired in later stages	Unimpaired
Alertness	Abnormal: low or high	Normal, at least initially	Normal or low
Consistency of performance	Variable	Consistent	Variable and slow
Sleep-wake cycle	Always affected	Affected in later stages	Difficulty sleeping, early morning wakening
Short-term memory	Always impaired	Not affected initially	Poor effort may lead to variable impairment
Long-term episodic memory	Impaired	Impaired; recent loss exceeds remote	Equal recent and remote loss
Perception	Often visual illusions and hallucinations	Commonly impaired in later stages	Normal, unless psychotic depression
Cognitive Loss	Unaware or denied	Minimised by patient	Maximised by patient
Speech and thought	Disorganised, deluded, slow or rapid	Word-finding difficulty, thoughts of death and dying	Suicidal thoughts

2.2 Eliminate other causes for cognitive impairment

Based on the results of the investigations, you should be able to eliminate other potential causes of cognitive impairment, establish a differential diagnosis and consider dementia sub-type.

2.3 Establishing Dementia Sub-Type

2.3.1 Alzheimer's Disease

DSM-IV Diagnostic Criteria For Alzheimer's Disease (1994)

- Multiple Cognitive Deficits
- Short and long term memory impairment
- One or more of the following:
 - Aphasia (language difficulty, eg. finding the right words)
 - Apraxia (difficulty performing simple tasks)
 - Agnosia (trouble recognising ordinary objects)
 - Disturbance of executive functioning (abstraction, judgement, reasoning, insight. Planning, initiating, sequencing, monitoring and stopping complex behaviour)
- Gradual onset, functional impairment, continuous decline
- Exclusion of other possible causes
- No evidence for delirium

Clinical course of Alzheimer's Disease

- Slow, progressive disease
- Mild (MMSE 21-30), Moderate (MMSE 11-20), Severe (MMSE 10 or below)
- Pathology begins years before any symptoms or functional compromise manifests
- Characterised in early stages by memory impairment, first personality changes, normal gait and posture, anomia, impaired abstraction, behaviour indifferent or delusional
- Characterised in later stages by evidence of global cognitive impairment, gait impairment, agitated behaviour, stupor or delusional states.

2.3.2 Vascular Dementia

- Cognitive impairment is due to cerebrovascular disease
- Evidence of vascular changes on CT/MRI
- Vascular risk factors present – HTN, cholesterol, diabetes, smoking, existing cardiac disease
- Typically evolves in a stepwise fashion but can also progress insidiously
- Often early onset gait disturbance, falls and urinary incontinence
- Often frontal lobe features, such as emotional ability, pseudobulbar palsy with speech/swallowing difficulties
- Focal neurologic findings frequently found in the early disease course

2.3.3 Lewy Body Disease

- Lewy Bodies evident (neuronal inclusions of neurofilament protein (alpha synuclein))
- Found in basal ganglia in Pick's Disease and diffusely through cerebral cortex in Diffuse Lewy Body Disease.
- Classical features of cognitive impairment plus
 - fluctuation in cognition, alertness and attention
 - Visual hallucinations
 - Parkinsonianism
- Responds to cholinesterase inhibitors
- Very sensitive to antipsychotics (causing rigidity)
- Disease course fluctuates

2.3.4 Fronto-temporal Dementia

- Degeneration on one or both of the frontal or temporal lobes of the brain
- Includes progressive aphasia, semantic dementia and Pick's Disease
- Early loss of personal and social awareness (early personality and behavioural changes)
- Disinhibition often prominent
- Mental rigidity, inflexibility, "concrete"
- Depression and anxiety prominent
- Speech and language disturbance
 - reduced in complexity
 - echolalia, stereotypy
- Early primitive reflexes and urinary incontinence
- Late rigidity, tremor
- Often younger age of onset

Adapted from Heck J., Dementia and Alzheimer's Disease in *A Practical Guide to Geriatric Medicine*.
Ratnaik R.

2.4 Determine severity and extent of participation limitation

Functional status should be assessed in terms of the patient's ability to perform activities of daily living; personal safety; communication ability; nutrition, hygiene and medications; ability to drive; and capacity for decision making. Specific issues that need to be considered include:

- safety issues in the home and on the road
- personal hygiene
- financial competency
- self-monitoring of medications
- ability to attend to adequate nutrition
- present legal and future capacity regarding advanced care directives, Enduring Guardianship or Enduring Power of Attorney.

2.4.1 Legal Capacity for Decision Making

Determination of a patient's capacity to make decisions may be an important role of the doctor.

This may apply in one of three situations:

- consent for medical treatment
- giving an advance care directive
- making a will

It may also apply to other tasks such as managing financial affairs or arranging living circumstances.

2.5 Manage Co-morbidity

It is important to correctly identify any existing co-morbidities in order that they may be adequately treated to avoid physical decline. Conditions which may aggravate dementia, such as cardiac or renal failure, nutritional deficiencies and visual and hearing impairments should also be given special attention. In addition to diagnosing and treating current co-morbidities, it is equally important to consider preventing future illness, by ensuring the patient is adequately assessed for functional status and has access to necessary care and support services.

2.6 Assess Family and social support and environment

You should assess carer and family stress and support. Your on-going assessment of the needs of the carer and level of support required is an essential component in your role of the management of the person with dementia. Carer support is as important as patient support.

The stress associated with caring for a person with dementia should never be underestimated. It places an extraordinary burden on those who undertake the caring role. Carers are often elderly, or stressed by other family responsibilities. Higher levels of depression, psychological morbidity and use of psychotropic medications are seen in carers of those with dementia. Difficulties experienced with caring can be enough to produce sufficient stress to place either the person with dementia or the carer at risk, or jeopardise the success of community care.

An assessment of the person's home environment is also important. The home should be assessed for safety of the bathroom, floor coverings, cooking facilities, storage of toxic substances and heating. The home assessment can also include measuring the person's ability to function safely and optimally within this environment, or whether they will need help performing specific activities of daily living.

Care plans should address activities of daily living (ADL) that maximise independent activity, enhance function, adapt and develop skills, and minimise need for support. They should also address the varying needs of people with different types of dementia. The aim is to support people with dementia so that they may remain living in the community for as long as possible.

3 Communicating a diagnosis of dementia

3.1 What to communicate regarding the diagnosis

- what the diagnosis is, and its prognosis
- how this may affect the person's personality, behaviour and functioning
- when and how to ask for help
- what services are available and how to access them
- legal and financial matters, eg enduring power of attorney, operation of bank accounts
- emotional support systems available
- support and respite care available
- financial assistance available
- how to deal with challenging behaviours and difficult issues such as giving up driving
- residential care options and how to access and evaluate these
- Enduring Power of Attorney or Guardianship
- making a will

3.2 How to communicate the diagnosis

Listed below are ways to help minimise the distress that breaking the news of dementia may cause:

- Allow adequate time and ensure privacy
- Let the patient decide how much they want to know
- Tell the patient and carer separately, if necessary
- Be empathetic and encourage expressions of feelings
- Break the news in stages over several consultations
- Assess patient's understanding frequently
- Be aware that both patients and carers may suffer reactive depression or anxiety after hearing the diagnosis
- It is perfectly acceptable to refer the patient to a specialist to hear the diagnosis if you feel that passing on the diagnosis will damage your relationship with the patient and/or family

Patients and families should be encouraged to contact the Alzheimer's Australia, which can provide information and support.

4 Management

It is important to explain to the patient and family the features of the dementia prognosis, and to discuss the major cognitive problems. Review medications that may worsen symptoms in addition to giving advice on minimising alcohol intake. Treatment of co-existing conditions, such as depression or poor hearing can help.

Management of behavioural and psychiatric manifestations can be challenging, especially agitation and wandering. Simple behavioural techniques, environmental manipulation and a strongly structured routine may help.

As more basic activities of daily living are lost, the level of care needed increases, sometimes eventually requiring care services. This can be discussed early with the patient and family to identify options and costs.

Early contact with the Alzheimer's Association and discussion of financial, estate and guardianship issues is important while consent and competency are still intact.

Counselling and support for carers is important at all stages.

The following is a list of recommended actions to assist patients with mild to moderate dementia and their families after a diagnosis has been made. You are not expected to be able to complete such a detailed management plan at this stage of your medical training, but it is important for you to be aware of the necessary steps as it is likely you will need to care for people with dementia as a medical graduate.

1. Inform the patient and their family of the diagnosis
2. Identify what support the primary caregiver can offer and determine caregiver needs – assess regularly
3. Decide on the need for referral for further diagnostic and management assistance - assess regularly
4. Assess for safety risks (eg. driving, financial management, medication management, home safety risks or potentially dangerous behaviours) - assess regularly
5. Determine the presence of any advance planning documents (eg. will, enduring power of attorney, personal directive). If none exist, advise that they be drafted.
6. Assess the patient's decision making capacity - assess regularly
7. Refer the patient and family to local Alzheimer's Australia branch.
8. Provide information and advice about pharmacologic and non-pharmacologic treatment options
9. Develop and implement a treatment plan with defined goals - assess and update regularly
10. Monitor response to initiated therapy
11. Monitor and manage functional problems (eg., incontinence) as they arise
12. Assess and manage behavioural and psychological symptoms of dementia as they arise
13. Monitor nutritional status and intervene as needed
14. Deal with medical conditions and provide on-going medical care
15. Mobilise community based and facility based resources as needed

Encourage caregivers to participate in caregiver educational programs and support groups.

5 Diversity and Equality

- Always treat people with dementia and their carers with respect.
- Ensure people with dementia are not excluded from services because of their diagnosis, age, or any learning disability.
- If there is a language barrier, offer:
 - written information in the preferred language and/or an accessible format
 - independent interpreters
 - psychological interventions in the preferred language.
- Ensure that people suspected of having dementia because of cognitive and functional deterioration, but who do not have sufficient memory impairment for diagnosis, are not denied access to support services.

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10.7.1 Mini CEX Assessment Form

During this clinical attachment students will be interacting with patients and families at different levels. You are required to complete this mini-CEX during one of these clinical consultations. While no individual grade will be attributed to this assessment, the mini-CEX must be completed as part of your Geriatric Medicine placement.

Please use black ink and CAPITAL LETTERS and complete the questions using a <input checked="" type="checkbox"/>					
Student Surname:		Student First name:		Student Number:	
Clinical Problem	Dementia <input type="checkbox"/>	Other cognitive impairment <input type="checkbox"/>	Falls <input type="checkbox"/>	Incontinence <input type="checkbox"/>	Other <input type="checkbox"/>
Focus of clinical encounter:	History <input type="checkbox"/>	Examination <input type="checkbox"/>	Diagnosis <input type="checkbox"/>	Management <input type="checkbox"/>	Explanation of Diagnosis <input type="checkbox"/>
Complexity of case: Low <input type="checkbox"/> Average <input type="checkbox"/> High <input type="checkbox"/>					
Assessor's position: Consultant <input type="checkbox"/> Registrar <input type="checkbox"/> Advanced Trainee <input type="checkbox"/>					
Please grade the following skill areas using the scale below:	Below expectations	Meets expectations	Above expectations	N/A*	
	1	2	3		
1. History taking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Physical examination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Diagnosis/Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Communication skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Organisation/Efficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*N/A Please mark this if you have not observed the behaviour and therefore feel unable to comment.					
Feedback on particular strengths			Feedback on areas for development or improvement		
Agreed Action Plan					
Assessor's Signature:		Date:		Time taken for CEX (in minutes):	

Students should request that a **Consultant, Registrar or Advanced Trainee in Geriatric Medicine** observe them interacting with a patient. Please ask the observer to fill in this form and include it in your workbook. The mini-CEX, including observation and feedback, should not take longer than 30 minutes.

10.7.2 Mini-CEX Assessor Guide

What is the mini-CEX?

The mini clinical evaluation exercise or mini-CEX is both a method for observation and assessment of clinical skills and also a valuable teaching tool. It involves direct observation of a student in a real life clinical setting, followed by immediate feedback from the observer (Nair et al, 2008). The mini-CEX is designed to provide feedback on skills essential to the provision of good clinical care by observing an actual clinical encounter.

The student is assessed on a range of skills, such as history taking, physical examination, communication, diagnosis and clinical management (Carr, 2009). All of these skills are core competencies that a doctor uses during day to day encounters with patients.

The mini-CEX is a 15-20 minute snapshot of the interaction between a student and their patient. Particular assessments may focus on a specific range of competencies, depending on the focus of the consultation.

This method has been shown to be a reliable and valid education and assessment tool (Kogan et al., 2003; Norcini et al., 2003; Nair et al., 2008).

Should I have been asked to be an assessor?

You need not have prior knowledge of this trainee, but you should be a consultant, registrar or advanced trainee in Geriatric Medicine who feels confident to assess the particular case. Ideally, you should be familiar with the mini-CEX and have had training in providing feedback. The mini-CEX can take place in the ward, clinic, during treatment planning or in other suitable clinical contexts.

How should the mini-CEX work?

Please ensure that the patient is aware that the mini-CEX is being carried out. The process is trainee led. They have chosen you to assess them and they have chosen the clinical encounter. The encounter should however be representative of their workload. The observed process should take no longer than 20 minutes. Please provide the student with immediate feedback on their performance, using the standard template. Please give your open and honest opinion with reference to the case in question *only*. Please complete, sign and date the form personally.

Giving Feedback

One of the most crucial aspects of the mini-CEX is the feedback given to the student by the assessor, which must always aim to be meaningful and useful to facilitate development in the student's clinical skills.

In order to maximise the learning potential of the mini-CEX it is essential that the student be actively involved in the feedback process. Together, the student and assessor should identify areas for improvement and devise an action plan to facilitate professional development. This method of interactive feedback allows the students to take ownership of their own learning

by identifying strengths and weaknesses, and being actively involved in developing the action plan designed to facilitate improvement (Holmboe et al., 2004)

Positive feedback on the student's strengths during the clinical exercise is also vitally important (Fernando, 2008). Feedback should show concern and regard for the student and their professional development, thereby enhancing their motivation for improvement (Carr, 2009)

Equal attention should be given to the quality of both the observation and the feedback.

As this method is being used for formative assessment of student skills, it is important to maximise the effectiveness of the process as a learning experience.

Some useful guidelines for feedback

1. Be clear about what you want to say
2. Be specific – avoid general comments
3. Ownership of feedback (use “I” or “the assessors” type statements)
4. Emphasise the positive, be constructive
5. Comment on behaviour that can be changed, not personality
6. Be descriptive rather than evaluative. In this way, feedback becomes non-judgemental, specific and directed towards behaviour.
7. Be careful with advice – work together with the student to help them identify the areas they could improve on, understand how they might have performed better on these issues and develop actions plans to facilitate improvement in the future.

COMPLETING THE FORM

Note: the full range of clinical skills will not necessarily be completed in one clinical encounter. Only assess those that are relevant to the situation.

Assessors should ensure that the clinical problem, the focus of the clinical encounter, the complexity of the case and their clinical position is recorded at the top of the form.

After observing and assessing the student, please make brief notes on the student's performance in the space provided and outline the agreed action plan.

Please take time to fully discuss your feedback with the student, encourage them to be active in the feedback process, to comment on what they felt their strengths and weaknesses were and to work with you in developing an action plan for future professional development and improvement in clinical skills.

Finally, please sign, date and record time taken for observation and feedback and return the form to the student.

Specific points:

Clinical Problem: Please note the primary clinical problem.

Focus of clinical encounter: Diagnosis should include an assessment of the trainees' examination skills and their abilities to reach a provisional diagnosis.

Complexity of case: Please score the difficulty of the clinical case for the level of a 4th year medical student.

Using the scale:

Please use the full range of the rating scale. Remember that you are assessing 4th year medical students so rating should be based on the expected level of competency for clinical students.

Below Expectations—gaps in knowledge or skills that are not anticipated at this level of training. Some concerns about professionalism or patient safety.

Meets Expectations—performance at a level anticipated for a student in their first clinical year. Generally clinically competent and with satisfactory communication skills and professionalism.

Above expectations—performing well, above the level anticipated for this stage of the course. No concerns about their clinical method, professionalism, organisation or communication.

Ratings:

The details below outline the skills associated with each domain in this mini-CEX rating form. Please note that not all skills need be examined during each encounter – this is a guide to show what may be observed and rated.

History Taking Skills

- Ability to interact with patient
- Ability to direct questions at key problem
- Ability to use second order of questioning to optimise focus
- Ability to incorporate information from questions with other information
- Ability to identify and respond appropriately to non-verbal cues
- Ability to retain a range of diagnostic options

Physical Examination Skills

- Ability to conduct a systematic and structured physical examination
- Shows sensitivity to patient's comfort and modesty
- Ability to detect abnormal signs when present and weigh the significance of these findings
- Informs patient
- Ability to focus the examination on the most important components
- Ability to integrate findings on examination with other information to clarify diagnosis

Diagnosis/Management

- Ability to weigh importance of potentially conflicting clinical data
- Ability to determine best choice of investigations and management
- Ability to establish a differential diagnosis based on available evidence
- Ability to relate management options to the patient's own wishes or situation
- Considers the risks and benefits of the chosen management/treatment options
- Ability to come to a firm decision based on available evidence

Communication Skills

- Shows respect for patient at all times
- Explains as well as asks
- Listens as well as tells
- Conscious of potentially embarrassing or painful components of interaction
- Shows awareness of issues surrounding confidentiality
- Able to adapt questioning and examination to patient's responses
- Explains rationale for test/treatment

- ☐ Addresses the transfer of information in a way which is clear and tailored to the patient's needs
- ☐ Able to respond to patient and modify or repeat information in a different way
- ☐ Recognises patient's own wishes and gives them priority
- ☐ Avoids personal opinion and bias

Organisation/Efficiency

- ☐ Ability to synthesise a collection of data quickly and efficiently
- ☐ Demonstrates appropriate judgement and synthesis
- ☐ Demonstrates optimal use of time in collection of clinical and investigational data

******Feedback:******

In order to maximise the educational impact of using mini-CEX, you and the trainee need to identify agreed strengths, areas for development and an action plan. This should be done sensitively and in a suitable environment.

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10.7.3 Mini-CEX Student Guide

What is the mini-CEX?

The mini clinical evaluation exercise or mini-CEX is both a method for observation and assessment of clinical skills and also a valuable teaching tool. It involves direct observation of a student in a real life clinical setting, followed by immediate feedback from the observer (Nair et al, 2008). The mini-CEX is designed to provide feedback on skills essential to the provision of good clinical care by observing an actual clinical encounter.

The student is assessed on a range of skills, such as history taking, clinical examination, communication, diagnosis and clinical management (Carr, 2009). All of these skills are core competencies that a doctor uses during day to day encounters with patients.

The mini-CEX is a 15-20 minute snapshot of the interaction between a student and their patient. Particular assessments may focus on a specific range of competencies, depending on the focus of the consultation.

This method has been shown to be a reliable and valid education and assessment tool (Kogan et al., 2003; Norcini et al., 2003; Nair et al., 2008).

Who can be an assessor?

You can ask consultants, registrars or advanced trainees in Geriatric Medicine to conduct a mini-CEX for you. Assessors need not have had contact with you previously in order to be a mini-CEX assessor. Assessors ideally should be familiar with the mini-CEX and have had training in providing feedback. The mini-CEX can take place in the ward, clinic, during treatment planning or in other suitable clinical contexts.

How should the mini-CEX work?

Please ensure that the patient is aware that the mini-CEX is being carried out and obtain verbal patient consent before the assessment commences. The process is initiated by the student so you should lead the assessment of the particular clinical encounter you have chosen. Please choose a clinical encounter that is representative of your expected workload and level of clinical competency depending on your year of study.

The observed process should take no longer than 20 minutes. Your assessor should provide you with immediate feedback on your performance, using the standard template. Together you should identify areas of strength and weakness and develop an action plan to facilitate improvement.

Feedback

One of the most crucial aspects of the mini-CEX is the feedback given to you by the assessor, which must always aim to be meaningful and useful to facilitate development in your clinical skills.

In order to maximise the learning potential of the mini-CEX it is essential that you be actively involved in the feedback process. Together, you and the assessor should identify areas for improvement and devise an action plan to facilitate professional development. This method of interactive feedback will allow you to take ownership of your own learning by identifying strengths and weaknesses, and being actively involved in developing the action plan designed to facilitate improvement (Holmboe et al., 2004)

Equal attention should be given to the quality of both the observation and the feedback.

As this method is being used for formative assessment of student skills, it is important to maximise the effectiveness of the process as a learning experience. If you feel that your assessor has not given you adequate feedback, please ask them to expand upon any comments made. Be active in the feedback process. Identify areas where you think you went well and others where you might have done better. If need be, ask the tutor to help you develop an action plan to improve on any areas you did not feel comfortable with.

COMPLETING THE FORM

Note: the full range of clinical skills will not necessarily be completed in one clinical encounter. You will only be assessed on those that are relevant to the situation.

You should enter your name and student number at the top of the form.

The assessor will record the clinical problem, the focus of the clinical encounter, the complexity of the case and their clinical position.

After observing and assessing your clinical encounter and discussing feedback with you, the assessor will make brief notes on your performance and outline the agreed action plan.

The assessor should take time to fully discuss their feedback with you, and encourage you to be active in the feedback process. You should comment on what you felt your strengths and weaknesses were and work with your assessor in developing an action plan for future professional development and improvement in clinical skills

Once the assessor has signed and dated your mini-CEX form, please include it in your workbook for discussion with your tutor at the end of your Geriatric Medicine term.

The Assessment Scale:

Below is an explanation of how your performance will be rated and a list of areas in which your clinical competency may be assessed, including a number of key points that the assessor may consider when scoring your performance. Remember that you are 'only' 4th year medical students so rating will be based on the expected level of competency for clinical students.

Below Expectations—gaps in knowledge or skills that are not anticipated at this level of training. Some concerns about professionalism or patient safety.

Meets Expectations—performance at a level anticipated for a student in their first clinical year. Generally clinically competent and with satisfactory communication skills and professionalism.

Above expectations—performing well, above the level anticipated for this stage of the course. No concerns about their clinical method, professionalism, organisation or communication.

Ratings:

The details below outline the skills associated with each domain in this mini-CEX rating form. Please note that not all skills need be examined during each encounter – this is a guide to show what may be observed and rated.

History Taking Skills

- Ability to interact with patient
- Ability to direct questions at key problem
- Ability to use second order of questioning to optimise focus
- Ability to incorporate information from questions with other information
- Ability to identify and respond appropriately to non-verbal cues
- Ability to retain a range of diagnostic options

Physical Examination Skills

- Ability to conduct a systematic and structured physical examination
- Shows sensitivity to patient's comfort and modesty
- Ability to detect abnormal signs when present and weigh the significance of these findings
- Informs patient
- Ability to focus the examination on the most important components
- Ability to integrate findings on examination with other information to clarify diagnosis

Diagnosis/Management

- Ability to weigh importance of potentially conflicting clinical data
- Ability to determine best choice of investigations and management
- Ability to establish a differential diagnosis based on available evidence
- Ability to relate management options to the patient's own wishes or situation
- Considers the risks and benefits of the chosen management/treatment options
- Ability to come to a firm decision based on available evidence

Communication Skills

- Shows respect for patient at all times
- Explains as well as asks
- Listens as well as tells
- Conscious of potentially embarrassing or painful components of interaction
- Shows awareness of issues surrounding confidentiality
- Able to adapt questioning and examination to patient's responses
- Explains rationale for test/treatment
- Addresses the transfer of information in a way which is clear and tailored to the patient's needs
- Able to respond to patient and modify or repeat information in a different way
- Recognises patient's own wishes and gives them priority
- Avoids personal opinion and bias

Organisation/Efficiency

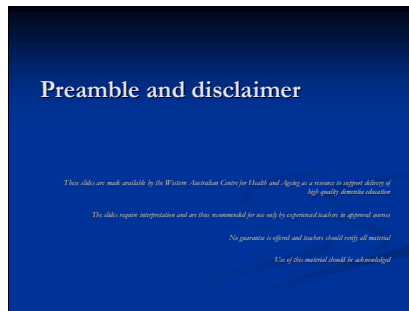
- Ability to synthesise a collection of data quickly and efficiently
- Demonstrates appropriate judgement and synthesis
- Demonstrates optimal use of time in collection of clinical and investigational data

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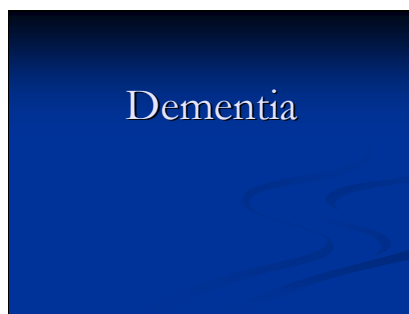
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10.8 Dementia Lecture

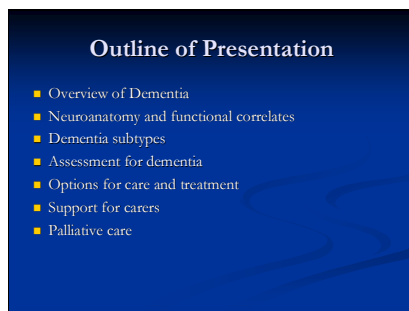
Slide 1



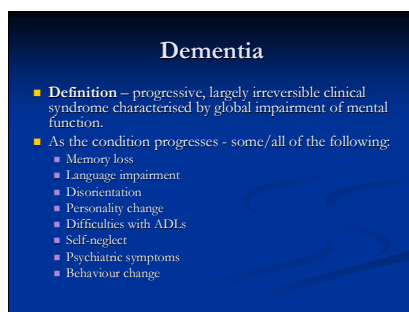
Slide 2



Slide 3



Slide 4



Psychiatric symptoms – for example, apathy, depression, psychosis
Behavioural change – for example, aggression, sleep disturbance, disinhibited sexual behaviour

Slide 5

Epidemiology

- In Australia:
 - 2008: 227,300 persons with dementia.
 - 9,600 cases *under 65 years of age*.
 - 57,000 new cases expected to be diagnosed in 2008.
 - 2050: 731,000 cases projected.
 - 1 in 15 aged 65+ (prevalence rate)
 - 1 in 9 aged 80 – 84
 - 1 in 4 aged 85+
 - Affects the lives of nearly 1 million Australians (carers)
 - Prevalence in Australian Aboriginals 5x higher
 - 1 in 8 Australians with dementia from NESB

SOURCE: Alzheimer's Australia, Dementia Facts and Statistics, Updated January 2008.

327% increase in dementia cases by 2050, despite a less than 40% projected increase in population

Prevalence rate refers to moderate to severe dementia.

Carers for family or friends with dementia

In population group 45+ - prevalence dementia general population 2.6%, in Aboriginal population 12.4% in Kimberley region.

NESB – issues for diagnosis and treatment.

Slide 6

A Costly Challenge

- 2002: \$6.6 billion total financial cost of dementia.
- 2051: Anticipated 3.3% GDP
- Family carers provide 80% of value of informal care, without financial compensation.
- Half of persons with moderate to severe dementia live in community settings, half in residential care facilities.

Community refers to own homes or homes of carers.

Slide 7


A Complex Problem: Morbidity and Mortality

- Complex care needs
 - Dementia 2nd to depression in disability burden (Lancet, November 2009)
 - With disease progression, can present behaviours of concern such as aggression, restlessness and wandering, incontinence, psychotic symptoms and mobility problems.
- Mortality
 - Fourth leading cause of death in age 65+.
 - Survival 4-8 years, depending on age at diagnosis, severity at diagnosis, other medical conditions, gender.

Psychotic symptoms – hallucinations and delusions
Mobility problems leading to falls and fractures.

Slide 8

Functional Neuroanatomy



- Frontal Lobe: reasoning, planning, parts of speech, movement, emotions, and problem solving
- Parietal Lobe: movement and perception, orientation, recognition
- Occipital Lobe: visual processing
- Temporal Lobe: auditory perception, memory, and speech

Frontal lobe – conscious thought, language
Parietal – integrating sensory information, visuo-spatial
Temporal – smell and sound, processing complex stimuli, language
Occipital – vision

Memory – temporal, hippocampus
Apraxia – parietal
Agnosia – occipito-temporal border
Aphasia – temporal, medial insular cortex

Slide 9

Neurological Conditions Causing Dementia

- Alzheimer's disease* (50-70%) *Mixed Common
- Vascular dementias* (10-20%)
 - Multi-infarct dementia
 - Binswanger's disease
- Dementia with Lewy Bodies (DLB)
 - Diffuse Lewy Body disease
 - Lewy body variant of AD
 - Parkinson's disease
- Other less common dementias
 - FTD, CJD, PSP, NPH, HD, alcohol.

Frequently mixed forms – AD and VD, AD and DLB

Slide 10

Alzheimer's Neuropathology

- Neuritic plaques
 - Core of amyloid, abnormal neurites and glial cells
 - Amyloid is diagnostic of AD – toxic to brain cells and provokes inflammatory reaction.
- Neurofibrillary tangles
 - Extracellular phosphorylated tau protein
 - Not specific for AD (80% of people > 80y) but amount correlates with disease burden.
- Other findings
 - Cortical neuronal loss in amygdala, hippocampus, entorhinal cortex
 - Amyloid angiopathy in leptomeningeal and cortical vessels.

Slide 11

Alzheimer's Disease

- Asymmetric onset usually seen
 - If dominant (usually left) hemisphere affected first then language problems early.
 - If right hemisphere first – tend to have problems organising activities in space and flattening of expressed feelings.
 - In some patients the disease process first affects areas of the brain subserving emotion/thought organisation (limbic and/or frontal areas) – personality changes and psychoses prominent early.
 - Ultimately a global process.

Slide 12

Vascular dementia

- Multi-infarct dementia
 - Most common form of VD
 - Multiple strokes
 - Location determines deficits: cognitive deficits can result from infarcts in strategic brain areas.
- Binswanger's disease
 - Subcortical vascular dementia
 - Related to chronic hypertension
 - Pathological changes greatest in the cerebral white matter, especially in the territory of the long penetrating arteries.
 - Subcortical dementia with gait dyspraxia, hyperreflexia and personality changes in a patient with vascular risk factors.

Slide 13

Dementia with Lewy Bodies

- Lewy bodies are neuronal inclusion bodies
- Lewy bodies found most often in the temporal lobe, in the cingular gyrus, amygdala and insula.
- Memory loss may be more subtle than in those with AD.

Slide 14

Fronto-temporal dementia

- Degeneration on one or both of the frontal or temporal lobes of the brain.
- Includes FTD, Progressive non-fluent aphasia, Semantic dementia and Pick's disease
- subtypes depending on where the pathological process appears to originate:
 - Progressive aphasia – begins left hemisphere, language problems dominate initially.
 - Right temporal onset – earlier and more prominent changes in personality may be mistaken for schizophrenia, aggression and socially inappropriate behaviours.
 - Both frontal lobes initially – mainly begin to experience problems with organising and planning, may also show disinhibited behaviour and word finding problems, Pick bodies in some cases.

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Alzheimer's Disease

- Most common cause of dementia.
- Regarded as a syndrome.
- May coexist with other causes of dementia.
- **DSM-IV Diagnostic criteria for AD (1994)**
 - Multiple cognitive deficits
 - Short and long-term memory impairment
 - One or more of the following
 - Aphasia
 - Apraxia
 - Agnosia
 - Disturbance of executive function
 - Gradual onset, functional impairment, continuous decline
 - Decline from previously higher level of function
 - Exclusion of other possible causes.
 - No evidence for delirium.

Memory impairment required for diagnosis, prominent early (especially recent)

Aphasia = deterioration in language function

Apraxia = impaired ability to execute motor activities despite intact motor abilities, sensory function and comprehension of required tasks.

Agnosia = impaired ability to recognise familiar objects.

Executive function = loss of ability to think abstractly, to count, plan, initiate, sequence.

Progressive – typically loss of 3-4 points MMSE per annum or yearly change ADAS-Cog 7-9 points.

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Alzheimer's Disease

- **NINDS-ADRDA Criteria** (perfected by NICE)
- **PROBABLE AD**
 - Dementia
 - Deficits 2 or more cognitive domains
 - Progressive worsening memory and other cognitive functions
 - No disturbance consciousness
 - Onset between 40 and 90 years of age
 - Absence of other systemic disorders
 - Progressive worsening of specific cognitive functions
 - Impaired ADLs
 - Associated behavioural abnormalities
- **POSSIBLE AD**
 - Dementia consistent to the absence of other neurological, psychiatric or systemic disorders sufficient to cause dementia, and in the presence of features as the other, at the presentation, clinical course.
- **UNCERTAIN/UNLIKELY AD**
 - Delirium
 - Poor neurological findings
 - Early onset or poor distribution

Slide 17

Clinical Course of AD

- Slowly progressive disease.
- Mild (MMSE 21-30), moderate (MMSE 11-20) and severe (MMSE 10 or below)
- Pathology begins years before any symptoms or functional compromise manifest.
- Early – memory impairment, personality changes, gait and posture normal, anomia, impaired abstraction, behaviour indifferent or delusional.
- Later - global cognitive impairment evident, gait impaired, behaviour agitated, stuporous or delusional.

Gradually growing pathological burden, crosses threshold.

Slide 18

Common Medical Problems in AD

- Falls and fractures
- Incontinence (urinary/faecal)
- Malnutrition with sarcopenia
- Immobilisation with contractures and rigidity
- Depression
- Infections
- Delirium
- Seizures
- Other medical comorbidities – stroke, heart attack, arrhythmia

1/3 patients with dementia will suffer depression at some stage.
May be a risk factor or prodromal symptom.

Urosepsis, pneumonia, infected decubitus ulcers.

Seizures 20-30% late stages.

Slide 19

Vascular Dementia

- Distinguishing from AD
 - Onset – in multi-infarct dementia may be abrupt deterioration in cognitive functions or fluctuating stepwise progression of cognitive deficits.
 - Cardiovascular risk factors, previous stroke or TIA.
 - Focal neurological deficits.
 - Multiple infarcts on imaging.
 - In Binswanger's, subcortical pattern

AD – gradual onset and continuous course.
Gait normal until severe stage.

Vascular RF less common
Neurological signs may not be present.
Imaging findings – none but atrophy.

Slide 20

Dementia with Lewy Bodies

- Classical features to assist diagnosis:
 - Parkinsonian type symptoms (may be mild)
 - Visual hallucinations
 - Memory loss (may be subtle) leading to very severe dementia.
 - Fluctuating cognition
 - Executive function deficits.
 - Severe visuo-spatial deficits.
 - Neurolept sensitivity (EP and cholinergic side effects)

Slide 21

Parkinson's Disease and Dementia

- PD – progressive disorder of the CNS characterised by tremor, rigidity, bradykinesia.
- 30% of elderly patients with PD develop dementia
- Possible causes:
 - Dementia with Lewy Bodies (DLB)
 - Dementia associated with PD – “subcortical dementia” (PD-D)
 - Alzheimer's disease (AD)

DLB – characterised by parkinsonism, visual hallucinations, fluctuating cognition, neurolept sensitivity

Subcortical dementia – characterised more commonly by changes in personality and a slowing down of thought processes.
Language and memory largely unaffected.
Compares to cortical dementias (like AD, Pick's disease, CJD) – problems with memory, recall, language.

AD may coexist with PD or DLB or VD.
Common things occur commonly.

Slide 22

Dementia Diagnosis

- Memory assessment services
- History
- Cognitive and mental state examination
 - MMSE – be aware of limitations.
 - Other standard tests eg clock drawing
 - Assess affect
- Physical examination
- Review of medications (including OTC)
- Appropriate investigations
- Formal neuropsychological testing
 - Mild dementia, unusual features

Multidisciplinary approach of MAS
Access to SW input
Environmental modifications to aid independent functioning
Continence assessment
Physio input as needed.
Neuropsychology, counselling.
Education, counselling, support, discuss prognosis

Limitations of MMSE:

Educational level, skills, language, sensory impairments, psychiatric illness, physical or neurological problems. Poor fronto-executive, hence CDT.

ADAS-cog, RUDAS

Regular assessment for medical co-morbidities, depression, psychosis

Slide 23

Investigations

- "DEMENTIA SCREEN"
- MSU if delirium a possibility
- Consider CXR if indicated.
- Lumbar puncture not routine.
- Radiology – MRI preferred, CT more readily available
- Other imaging – SPECT
- Other tests if indicated eg EEG
- APOE, neurobiological markers (research)

Basic haematology, TFT's, B12/folate, Electrolytes, calcium, glucose, renal and liver function.

MRI – assist with early diagnosis and detect subcortical vascular changes.

Other imaging modalities to discern between AD, DLB, VD, FTD

Slide 24

Communicating the result to patient and family

- Determine client and carer's expectations and preferences
- Remember the general principles of "breaking bad news"
- Offer supporting material (including further appointment and written information)
- Sometimes it will be a relief to "have an answer"

Slide 25

Options for care and "treatment"

- Pharmacotherapy usually forms a small component of the treatment plan.
- All carers and relevant staff should have access to dementia care training (including volunteers)
- Environment
 - both in residential care (dementia-specific) and home
 - Assistive technologies to maintain independence

Slide 26

Care Options

- Medications: blister packing, prompts & supervision.
- Cognitive stimulation programs.
- Services – HACC, CACP, D-EACH.
- Day Centres
- Respite (residential, in-home)
- Permanent care – or planning for the future.
 - 50% low care, 90% high care with cognitive impairment.

Slide 27

Behaviours of concern

- includes calling out, aggression and risky behaviours
- Often stressful for carers
- Resources such as DBMAS
- Judicious use of medications to treat anxiety, psychosis or depression

Slide 28

Cultural, ethnic and social issues

- Consider schooling and cultural factors in assessment, utilising professional interpreters when required
- Consider culturally appropriate services
- Consider persons social strengths

Slide 29

Pharmacotherapy

- Cholinesterase inhibitors
 - PBS prescribing criteria restrict therapy to certain groups
- Memantine
 - Very specific PBS criteria
- Antidepressants
 - Modern agents (eg SSRJ) safer and better tolerated
- Antipsychotics
 - Try non-pharmacological interventions first (behavioural strategies, music, massage, aromatherapy) for challenging behaviours.
 - Increased risk of cardiovascular accidents and death
 - Very cautious use in DLB (extrapyramidal toxicity).

Galantamine, donepezil, rivastigmine

Also – 20-30% people with advanced AD get seizures – review drugs which lower Sz threshold (tricyclics, antipsychotics) and consider anticonvulsant drugs.

Slide 30

How effective are the dementia drugs?

- Modest improvements in cognition, ADL and global function.
- About 50% of patients can be considered positive responders
- superior to placebo at 6 – 12 months.
- NICE guidelines revised to state consider use for moderate AD (MMSE 10-20), not milder.
- Possibly slows down progression of dementia and reduces nursing home admission (also neuroprotective effects).

Slide 31

Other therapies

- Insufficient evidence to recommend Ginkgo biloba, vitamin E, anti-inflammatory medications, oestrogens
- Social supports are the most important management strategy.

Slide 32

Multi-disciplinary care

- Holistic care requires input from multiple professions and non-professional groups
- Peer support is often as valued as professional input
- Different perspectives may be critical at different points in the dementia journey

Slide 33

Care planning

- Health care ("Living Wills")
- Financial
 - Testamentary capacity
 - Enduring power of attorney (EPA)
- Social
 - Respite for client and carer
 - Accommodation options
 - Driving – risks, testing
 - Risk of abuse – physical, financial

Slide 34

Caregiver Burden: How to address?

- Identify any psychological distress and psychosocial impact on the carer.
 - Regular assessment
- Individual or group education.
- Peer support with other carers.
- Support via telephone or internet.
- Psychological counselling (or CBT) if needed.
- Training courses about dementia, services and benefits, communication and problem solving.
- Involve the person with dementia if appropriate.
- Practical offerings – transport, services, Day centres, respite.
- Am I at risk? – genetic counselling, education (Mind Your Mind)
- Maintaining quality of life for the carer.

Alzheimer's Association – Living with Memory Loss program for patients and carers.

Problem solving, such as managing aggressive behaviours.

Genetic counselling – younger onset dementias.

Slide 35

Palliative Care

Palliative care approach from time of diagnosis until death
(NICE, Clinical Guideline 42)

- Support QoL, death with dignity in place of own choosing.
- Access to palliative care services.
- Artificial feeding generally not beneficial in persons with severe dementia.
- Infections.
- Resuscitation status.
- Pain relief.
- Try to keep previously expressed preferences in mind. Discuss with carers and relatives.

QOL considerations involve consideration of physical, psychological, spiritual and social needs.

Need to ensure equal access to palliative care services as those without dementia.

Dysphagia or disinclination to eat is a manifestation of disease severity.

Infections – manage simple antipyretics and analgesics, cooling measures, individual decision to use antibiotics – may be considered a palliative measure.

Resuscitation status – unlikely to be successful in advanced dementia. Advance decisions best – discussed with carers and multidisciplinary team.

Consider PAIN if unexpected changes in behaviour or distress shown, Crying out, wincing, grimacing, increased restlessness, pain on movement. Remember falls and fractures. Pain often under-recognised and under-treated.

Slide 36

Quality of life for patient and carer

- Improvement of quality of life (QoL) in dementia is a high priority for care and research
- Many people with dementia can report their QoL.
- Utility of informant rating of QoL uncertain
- QoL does not necessarily decline as dementia advances (perhaps due to changing insight)

Slide 37

Enabling approaches

- Traditional time limited restorative rehabilitation approaches may have limited benefit for people with dementia
- Alternative adaptive strategies
- Enabling retained abilities to encourage independence and quality of life
- Enabling environments

Slide 38

Dementia and co-morbidities

- preventing complications and/or recurrence
- Optimising control of vascular risk factors
- Maintaining physical health and cognitive strengths
- High risk of delirium with intercurrent illness

Slide 39

Prevention

- Control of vascular risk factors
- Maintenance of physical health including physical activity
- Cognitive Activity

Slide 40

Acknowledgements

- Dr Maria Foundas (Consultant Physician in Geriatric Medicine, Royal Perth Hospital and Swan Kalamunda Health Service)
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