e-TB Nurses of Aus

Newsletter No. 2 - 2012

What's in this edition:

Welcome to the May 2012 e-TB Nurses of Aus newsletter. In this edition a couple of questions for you all to get your thinking caps on, send you answers to Carmel to be complied and published in the next newsletter. There is a big thank you from Margot for your assistance to her query.
Check out the fashions in Victoria and congratulations on your World TB activity.
What is the ideal TB nurse??…send us your thoughts and this leads to the wonderful article about the retirement of Beverly Tozer, all the best Beverly and thank you.
We have a summary of the Woolcock TB days, some light bedtime reading!
Health care worker screening (heard that groan) read the report about the outcomes of student screening in SE QLD.
Then there are 2 brief case studies sent in by the nurses in rural NSW. These case studies are to get the discussion going around the desk, so next time when you are talking about a particular case your currently dealing with, jot down some points and send them to us.

Lastly remember this is your newsletter so please send in your articles, questions and anecdotes to be shared across the network.

Enjoy winter in its many forms across this land; it was -5 in the ACT this morning.
Send us a photo of winter in your workplace.

Cheers Annmaree Nicholls and Carmel Cochrane (Editors)

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State TB Services Internet sites:

VIC: http://www.health.vic.gov.au/ideas/bluebook

ACT: http://www.health.act.gov.au/c/health?a=da&did=10009573&pid=1207892937

SA: http://www.rah.sa.gov.au/thoracic/about/

WA: http://www.health.wa.gov.au/services/detail.cfm?Unit_ID=519

NSW: http://www.health.nsw.gov.au/publichealth/infectious/tb/index.asp

NT: http://www.health.nt.gov.au/Centre_for_Disease_Control/Tuberculosis_and_Leprosy/index.aspx

TAS: http://www.dhhs.tas.gov.au

QLD: http://www.health.qld.gov.au/qtbcc/

1. Calling all left-handed TST & BCG providers:

Do you have any helpful tips or hints for learning to administer TST and BCG given it is probable one would be learning from a right-handed perspective! Any information would be most valuable to all involved! From Queensland

2. Screening for potential nosocomial transmission in aged care:

How do other states do screening for potential nosocomial transmission in elderly contacts in a hospital or aged care facility? From Victoria

Forthcoming Conferences

- Woolcock Research Institute, TB advanced clinical training & research days, 4 & 5 May 2012, Sydney.
- RCNA National Conference: Corporate & Clinical Governance; Cairns Qld; 23-26 May 2012
- 6th Conference of the Union Europe Region: London, UK; 4 -6 July 2012
- 23rd International Nursing Research Congress: "Creating a Legacy through Nursing Research, Innovation and global Collaboration" Brisbane; 30 Jul – 3 Aug 2012
- 5th Passionate About Practice Nursing Conference, Brisbane Qld: late Aug 12 - awaiting date
- RCNA Community & Primary Health Care Nursing Conference, Perth WA; 17-19 Oct 2012
- NSW TB Nurses Conference – late 2012- date to be confirmed

RCNA National Conference 2012
Corporate and Clinical Governance

Job Vacancies: nil reported

Protocols / Policies:

- National TB Screening Policy for the Protection of Health Care Workers draft
  - Await endorsement at CDNA

To all those who responded to my enquiry about the way nurse led clinics are run in their areas.

Margot Thompson, Tuberculosis Services, Royal Hobart Hospital

Report from Victorian TB Control Section

By: Simone Bittmann and Melissa Carroll

World TB Day 2012:

This year the Victorian TB Control Section held a lunch time forum to celebrate World TB Day. Opened by the Director of Health Protection, an historical overview of TB and TB Control in Victoria was given by Lynne Brown, as well as a particularly interesting case study by Peter Trevan. About 50 people attended, and all of our team got into the spirit of the day wearing T-Shirts highlighting this years' theme. Screening of a video presentation was also shown highlighting the work of the nurses in the TB Program. If you are interested in viewing the video please go to the link: http://www.youtube.com/watch?v=PbLQqTHKz58

Victorian TB Nurses at the World TB day 2012 forum

Article of Interest

Isenberg, *M (RN) (1921)"The Ideal Tuberculosis Nurse"*, The American Journal of Nursing Vol. 21 No.9,

Some quotes from the article…….

"She must be a woman embracing all the qualifications which a nurse should possess, with tact and a pleasing personality in double portion. If the patient has not seen a physician and is averse to it, she cannot drag him to one, nor have the doctor make a call, but she must use all her powers to persuade him to do so…..She looks after those who have come into contact with the patient, especially any children in the home, and secures medical attention for those needing it. She must be industrious to accomplish this work, not in one family, but in twenty or perhaps sixty. Perseverance is one of her greatest assets; sound common sense, cheerfulness and pleasant manners are also necessary." June 1921

Hasn't changed all that much in 90 years…..

For the full article go to: http://www.jstor.org/stable/3407293

Report from the Woolcock Research Institute: TB Advanced Clinical training and research workshop 4 & 5 May 2012

By: Annmaree Nicholls

I amongst a group of approximately 50 attendees enjoyed a very stimulating and thought provoking day at the Woolcock Institute. The day was to present current directions of TB research, promote collaboration and give an update of what is currently happening in TB research. I have summarised as best I can some of the points from my notes. If anyone has particular questions please feel free to give me a call.

The day commenced with a talk from Dr Nguyen Viet Nhung from Vietnam. The talk involved an overall outline of TB in Vietnam. In1986 TB control was modernised in Vietnam and in 1995 became a national priority. Vietnam is 12th out 22 high burden countries for TB and 14th out of 27 for MDRTB. Prevalence studies have discovered ~60% of TB in Vietnam is undiagnosed and unreported. National targets are early diagnosis of all TB and improve cure rates.

Treatment regimes are categorised 1-4. The last 2 applicable to drug resistant cases. Cat 1: 2RHZE/4RHE: Cat 2: 2 SRHZE/RHZE/5RHE: Cat 4: 2RHZE/10RHE: Cat 4a: ZEKmLtPTCs (PAS)/ZELfCs(PAS).

Vietnam NTP currently has good political commitment, a strong TB and TB lab network, membership with Stop TB partnership, national utilisation of standardised guidelines for TB management and nationwide reporting.
There are plans to strengthen surveillance systems, improve case detection and improve universal access.

Vision: TB elimination in Vietnam, with the program to have a patient centred approach. Increase investment in new technology and research leading to improvements in TB diagnosis, treatment and TB vaccines. Improve universal access and improve public private mix (PPM).

Then Dr Tran Ngoc Buu spoke about TB control in South Vietnam and PPM. TB remains much stigmatised in Vietnam and patients will change to private care as it is less regulatory (no DOTS). 60% of patients do not register for treatment due to this stigmatisation and due to insufficient knowledge about TB. There is currently work around enhancing TB notifications, improving PPM relationships and policies for the TB program. A large proportion of patients are not following DOTS which affects outcomes therefore more research on suitable management models is needed.

After morning tea and some chin wagging (standard at these functions) Prof Guy Marks outlined areas currently under research.

Areas of interest: TB prevention and adult management, better regimes, better targeting and better decisions.

Prevention Regimes: currently burdensome, poor adherence and associated with adverse events (AE). Looking at shorter regimes for better compliance and less AE.
Targeting: Clinical and epidemiology studies with cohort analysis linking groups such as TB risk and TB notifications. This research is nearing possible implementation as policy. Biomarkers were a topic covered throughout the day and very interesting. In a nut shell; researchers are trying to find biomarkers to predict progression from LTBI to TB disease.

Report from the Woolcock Research Institute (cont'd)

Better decisions: development of decision aids based on evidence. For example an aid to assist the decision of when to use IPT, this is close to being published.

Enhanced case detection: development of active case finding strategies leading to enhanced case detection in children, more on biomarkers and genetic susceptibility. Why do some people exposed become infected and others do not?

Active case finding: high risk groups, who are they and how do we find them, improved screening tools, and decrease the cost.
RCT in collaboration with the Woolcock and South Vietnam NTP: Intervention and control. Yearly screening with sputum's in the intervention group for 4 yrs. Population screening using sputum because if there is established an intervention in the years after exposure and disease is identified we will see effect on disease prevalence.

A/Prof Jamie Triccas followed with a very interesting talk on TB vaccine development. What is needed? More effective vaccines with prolonged effect. Simply there are a number of candidates at different levels in vaccine trials. They fall into the following brackets, Boosting vaccines (2 candidates level 11b trail), recombinant BCG (2 candidates) and attenuated (a number of candidates). Boosting and recombinant candidates are looking the most promising.

A/Prof Vitali Sintchenko: Advanced molecular epidemiology. Now this is a topic to get the brain in gear and mine was spinning fast. Vitali and team are working on development of novel high resolution typing to assist outbreak identification and point source tracking, this is very important to public health measures. Additionally these clever people are looking at spatial mapping and data analysis to connect pathology data with public health data. There is a race against MTB mutation and the emergent DRTB, investigating patterns and developing better detection methods.

Relevance of all this is understanding MTB lineages, documenting differing virulence and immunogenicity and ultimately disease progression. East Asian isolates are more likely to cause disseminated disease. Beijing family, more likely to cause clusters.
NSW is seeing more isolates with complicated DR profiles since 1995.

Prof Warrick Britton spoke about the research into biomarkers. This is where they are learning more about the immune response to the bacteria. The state of infection is a dynamic environment not what was previously believed and it is the host's immunity that controls this environment. LTBI lesions can be microbiologically active, some lesion reactivate then resolve. Diagnostic tests are microbiological testing at one point in time (smears, culture, NAT). Biomarkers are biological assays with predicative value and are serial testing. What they will do? It is thought they will predict progression from LTBI to disease, leading to targeted prevention where it will be most valuable. Understanding how the immunity system responds to the infection is what this research is all about. Predicting a person's susceptibility to progression from LTBI to disease, predicting the progression and predicting the response to drugs. This is critical to early recognition of DR and length of treatment. Biomarkers will also be a predication of curable TB and useful in testing vaccine efficiency. Prof Britton also managed to get one mention into the presentation about his favourite disease…leprosy.

Prof Philip Hill from New Zealand gave an interesting talk about his research collaboration with the Asia Pacific.
He and his team are looking at TB case contact, TB management, TB and diabetes, MDRTB and new diagnostics. He is most interested in a public health approach and policy practice gaps. Health needs assessments, gap analysis and operational analysis is

employed to bring all the research together and make it meaningful and useful. His special interest is in diabetes with a current study in Baachung looking at screening strategies, prevalence (diabetes in TB pts and TB in diabetes pts), medications interactions, medications, biomarker profiles (there they are again) and macrophage responses.

His wish is a multi site TB paediatric project, looking at burden of disease, evaluation of diagnosis and tools, immunological questions, public health frameworks around contacts, identification of gaps and understanding around IPT.

Prof Nigel Curtis; Murdock Institute, Royal Children's Hospital Melbourne was easily the most entertaining of the day, he received a number of laughs as he compared his research to AFL footy and 2 particular teams. He also revealed he is a pie's man (I think I got that right, Collingwood supporter). He covered so much information so quickly that it was hard to keep up. Main points; looking at BCG comparing BCG isolates immune responses and the non specific effects of BCG. There are different strains of BCG throughout the world, what does this mean and is one better than another? Yes there is a difference, some have specific cell response but the reaction is very complicated, scar size shows nothing about the response. BCG response differs in adults and children and the main need is to get an optimal priming vaccine. Research results are available on the Murdoch Institute web site. He spoke of IGRAs use in children and the jury is still out. There will be more on this and ultimately they would like to develop a POC test.

Dr Vicki Krasue: TB in Northern Australia, this presentation centred around a recently published study on assessment and management of refuges for LTBI. The study involved screening all refugees arriving in the NT for LTBI using TST and then offering IPT with monthly reviews. This article is available. Result: such a program is achievable with multi discipline cooperative team support and central intake. ~28% of all screened completed IPT.

Dr Suman Mjaumdar; MSF, gave a presentation of working in Abkhazia a disputed country and the issues of providing TB care in such a setting. Very interesting. Overall such a program relies on human resources, drug supply, lab capacity and cooperative boarder care. No surprises really. He was surprised to hear at afternoon tea that I too sometimes have to wait 7-10 days for a smear result. Last year I waited 13 days after the specimen travelled 700km and I work in rural NSW????

A/Prof Ben Maris; ID paediatrician now located at Westmead Children's Hospital but recently (last yr or so) arrived from South Africa spoke of improved prevention and management of TB in children. This is an area of most research need. Children are not mini adults but management has been adopted from adult programs. Children get TB where adults spread the disease. It is very difficult to diagnosis TB in children and IGRAs have no role in clinical settings with children. There is a huge spectrum of disease in children and this makes screening and diagnosis very difficult. Bacteriological conformation is the gold standard, best specimens are gastric aspirate (fasting early morning), induced assisted sputum, BAL, string test, FNA and biopsy. Recently WHO released guidelines for treatment of TB in children advocating the introduction of a 4th drug to the regime and a change in dosages. There is however difficulties with pharmacy supply. More research is needed in TB regimes and dosages. Treatment consideration is organism load. An interesting question from the floor related to infectivity of children. In theory he (and others) believes they are not very infectious but no studies have even been done to look at this. Good news is an EU PHD student has developed a cough box to study children cough aerosol. Ben's advice is smear +ve, cavitation disease, suspect infectious.

Report from the Woolcock Research Institute (cont'd)

Oh boy the day was not yet over. We finished with a presentation from Dr Greg Fox who we had seen in a video earlier in the day working and collaborating with colleagues in Vietnam. Contact investigation for TB a Meta analysis and comparison was the topic and what did they find? That there is weak evidence supporting contact tracing and what is needed is more research around impacts of interventions on TB epidemiology. Is contact tracing a policy for policy shake?? At this point in time maybe, what is missing is strong research evidence and this is occurring in Vietnam so more on this to follow. Points to take home from the SR; TB prevalence in contacts is high in low income countries. LTBI in children is high in both high and low income countries. Risk in household and children are increased and warrants focusing on these groups. Substantial incidence of disease over 5 years suggests the need for ongoing surveillance.

So the day ended and I walked back to the motel past some old stomping ground to sleep and get ready for more action Saturday…..stay tuned….AM.

Saturday 5th May. Advanced Course in Tuberculosis for clinicians and public health professionals.

Well the day was off and running when Dr Hamish Crawford, Respiratory Physician and NSW TBAC member gave an overview of diagnosing pulmonary TB disease, clinically, radiologically and microbiologically. There is a power point presentation containing 40 pages so if this is of special interest contact me and I will send you a copy. In summary consider phenotype (his new buzz word; meaning COB, recent migration, younger rather than older), symptoms, signs, radiology, tuberculin status, bacteriology and histology. Collect all the information to assist your decision. Symptom history and clinical presentation are very important. Normal CXR: active TB is rare. He then gave examples and spoke of what to look for. Topographical distribution is asymmetrical, the higher the more likely, broncho pneumonic patterns +/- cavitation. Pure lobar consolidation is uncommon. Acute changes superimposed on fibrosis/calcification/Bronchiectasis indicative of reactive disease. Effusion may also be present. TST and active disease, it is not diagnostic but if +ve it is consistent with diagnosis, if neg consider other options unless significant immune compromise or extensive disease. IGRA, less useful then TST, more likely to be neg in active disease. Bacteriology, sputum smear indicative of infectivity, sputum culture is the gold standard, suspect if only have one sample culture +ve. PCR of respiratory secretions has greater sensitivity then sputum culture but is less specific. Smear and PCR +ve almost diagnostic of active PTB and sufficient for treatment. High index of suspicion when: COB is a high incidence country and recent arrival, abnormal CXR particularly upper zones, +ve TST and cough. More extensive abnormal CXR =more likely reactivation.

Pam Banner, TB CNC Sydney gave an overview of the current screening of migrants and refugees in the NSW context. All applicants over 11> yrs of age for onshore or offshore visas undergo a CXR, if deem abnormal then an 815 form is signed. The client is then referred to the appropriate state and territory health service, the process from here varies slightly between jurisdictions.

After some refreshments and more chin wagging Dr David Michail presented approaches to treatment of pulmonary TB (again I have a power point presentation of 18 pages). He gave a brief history into the development of treatments, the general principals and aims of treatment and drug actions. Dr Michail then spoke about each TB drug, pharmacokinetics, dosing and adverse effects. He briefly mentioned standard regimes, DOTs, assessing outcomes and classifying outcomes. Extra pulmonary treatment, role of

surgery, corticosteroids, TB in HIV +ve patients and MDRTB. Send me an email if you would like a copy.
Prof Guy Marks Respiratory Physician, Director of the Woolcock, a member on the Board of Directors of The Union and Co editor of the IUTLD TB Journal, presented a session on new drugs and new regimes. No power point presentation is available. He spoke about what we need: shorter less toxic more effective regimes.
New drugs for DRTB, shorter regimes for DSTB and LTBI and regimes for contacts of DRTB. The approaches are new drugs, older drugs repurposed and new combinations. No new drugs have completed phase III trials but are in progress in early phase trials. One called TMC 207 (aka bedaquilline J) is a diarylquinolone and inhibits ATP synthase and synergistically works with PZA and RIF. There is no cross resistance with any other 1st line TB drugs as TMC 207 is not from the some class.
Animal studies demonstrate it is not effective against pauci-bacillary TB, doesn't eradicate infection. Likely it effectiveness will be in combination. It interacts with RIF, limiting use with RIF, so likely will be used in DRTB. Trials show it is well tolerated so far and is nearing FDA approval, Watch this space!! Linezolid a repurposed drug has in vivo and in vitro activity against MTB. Effective in regimes for MDRTB. The limits are its toxicity, neurologically and haematologically. This toxicity is dose duration dependent and usually used for shorter periods of time. Cohort studies only so far in DRTB shorter regime, no RCTs. Continuation phase in DRTB is guided by sputum conversion. 4mths KCGEHZP and then 5 mths GEZC. (Test your knowledge and name the antibiotics listed in capital letters, answers will appear later in the newsletter!).
DSTB, trials of replacing INH or EMB with Moxifloxacin to shorten treatment are inconsistent results so far. AND Increasing the dose of RIF as there is a linear dose response relationship (not so in INH), this is limited by toxicity and fits with new WHO recommendations to increase doses in children. New regimes for LTBI; well I'm sure you've all heard of the once a week for 12 weeks treatment recommended by CDC; Rifapentine 900mg and IND 900mg given under direct supervision….most promising and watch this space. The US will be monitored post implementation to see how this progresses, similar to post production surveillance of vaccines, remember the 1st generation rotaviruses vaccine.

The day was moving on and next Dr Anna Ralph ID physician gave a talk on extra pulmonary TB. I do have a handout for this one of 21 pages. An educational case study started things off. Dr Ralph then spoke about EPTB epidemiology and risk factors referring to EPTB as the neglected TB because it is a lower public health risk. EPTB has a large spectrum of conditions and is often hard to definitively diagnosis. Proportion of EPTB cases is 20% up to 40% (in some studies) of the total number of TB cases. Dr Ralph then briefly covered a number of EPTB manifestations and diagnostic considerations, treatment and prevention. Take home messages; EPTB manifests widely, host factors are the driver and the needed consideration of focal EPTB V's disseminated disease. Major problems exist with accurate case diagnosis and confirmation, leading to under or over diagnosis. Difficult to classify treatment outcomes as cannot microbiologically confirm cure. Be guided clinically by scoring methods. Longer treatment duration advocated but evidence for this is slim. Adjunctive steroids have an important role in some forms of EPTB.

Dr Greg Fox Respiratory physician, presented next following on from Friday with a talk on managing TB in high burden settings (remember he is working in Vietnam and had some very beautiful photos of the country) No handout. The issue is a global problem requiring knowledge, resources and commitment. A lot of TB worldwide is not diagnosed with estimates' that 5.8 million are diagnosed and 8.8 million develop TB. Stop TB partnership MDG is to halve TB by 2015 with the majority of TB in the Asia region, our region. Of note in Asia 20% of the population live in cities compared to 89% in

Australia….emm. We need to understand cultural beliefs re TB to better manage TB and he recommends working in a high burden TB country.

Ok nearing the home run. Dr Claudia Dobler followed afternoon tea (can I say the food was fantastic…not wishing to rub it in), she is a respiratory physician doing her PhD from the Woolcock, University of Sydney and Liverpool hospital. Dr Dobler spoke about the diagnosis of LTBI and the decision to treat. Basically to treat or not to treat LTBI is a dilemma and there is no right or wrong answer. So after briefly defining LTBI ('m I sure you all know what it is), LTBI pathogenesis, why we test, who do we test and how we diagnosis, Dr Dobler woke everyone up presenting 3 cases and asking the audience to make the decision to treat or not to treat. Now she asked for a show of hands and an explanation…so the debate started and as she said no right or wrong answer. This I found the most interesting as it highlighted the different approaches and reasoning. Dr Dobler then went over the decision reasoning…I'm going to save this presentation and in future newsletters we will write up the cases and ask you the same questions….so if you attended the day and there were a few nurses hang on to your handouts.

The day finished with Dr Hazel Goldberg respiratory physician and NSW TBAC member talking to us about new and existing treatment regimes for LTBI she realised she had the toughest gig, end of the day, almost Saturday night so she gave some main points and references. If you would like a copy of the presentation…you know what to do, although the print out is hard to read due to font colour. Simply, INH as a single agent works well but treatment is long and some patients get side effects. She covered the studies that formed this current regime highlighting how the optimal duration was reached and the differences. IPT for 6 mths appears not be the optimal, more than 12mths is not necessary and 9-10 appears optimal. Alternative regimes originated in mouse models and then human trials. Some studies such as the Dick Menzies collaboration study continues. The future is more research especially in DRTB LTBI treatment and HIV +ve LTBI treatment. Take home messages; targeted testing and targeted treatment, INH standard of care 6-9mths, individualised risk assessment. Alternative options: 3 INH/RIF (limited indications), 4 RIF for INH resistance or intolerance, 2 RIF/PYZ in HIV and ONLY with care, 3 INH/RPT Watch this space!!

So there you have it my summary of 2 very stimulating interesting days, thank you to all the wonderful people I spoke to it was great to put a face to names. To those I missed there is always next time.

Cheers Annmaree

CHECK THIS OUT

15 May 2012 / Paris, France – The words 'defaulter', 'suspect' and 'control' have been part of the language of tuberculosis (TB) services for many decades, and they continue to be used in international guidelines and published literature.

The detrimental effect of such negative language is detailed by TB experts from around the world in an article in the June issue of the *International Journal of Tuberculosis and Lung Disease,* "Language in tuberculosis services: can we change to patient-centred terminology and stop the paradigm of blaming the patients?"

Bringing together the opinions of authors and institutions from Africa, Asia, Latin America, Europe and the Pacific, the article proposes that the current terms be replaced with non-judgmental and patient-centred terms.

The authors describe how judgmental terms, such as referring to a person who might have tuberculosis as a 'TB suspect' can powerfully influence attitudes and behaviour at every level – from inhibiting patients to seek treatment to shaping the way policy-makers view the challenge of addressing the disease. They call for the Stop TB Partnership to lead discussions on this issue and make a change. Check out the article at the below link.

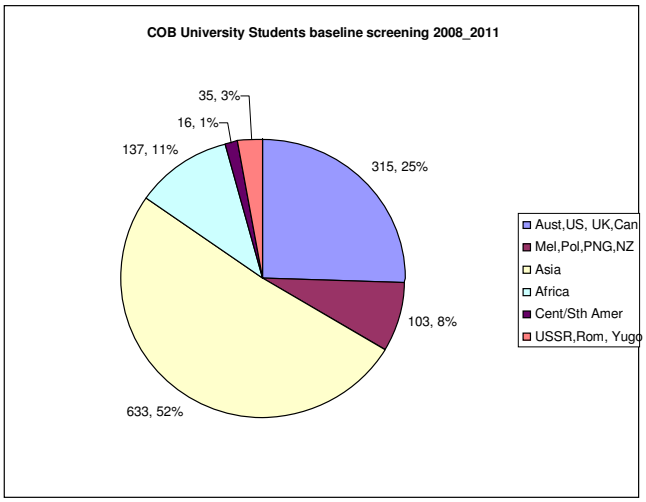
http://www.ingentaconnect.com/content/iuatld/ijtld/2012/00000016/00000006/art00003

Report from Queensland Tuberculosis Control Program

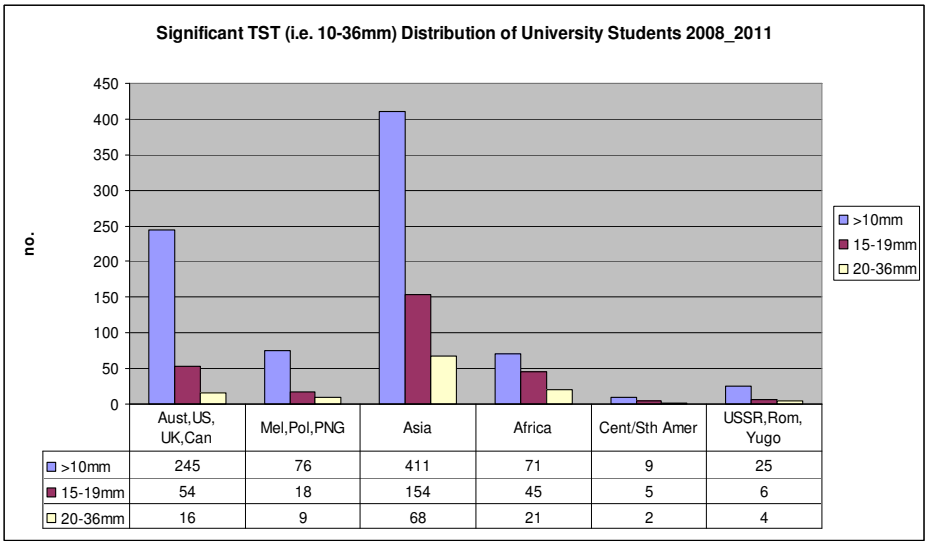
by Carmel Cochrane, Nursing Director, Brisbane

Outcomes of baseline health care worker student screening in south-east Queensland 2008_11

After a busy two months of providing baseline screening to approx 4000 health care worker students prior to their clinical placements which has resulted in significant workload for the entire unit, the question was posed "Do we really need to offer screening to *every* student?" Thus a preliminary review of the data was done of which the following is some of the results found and yet to be fully analyzed.



TST reaction	No.
0-4mm	6093
5-9mm	3926
10-14mm	837
15-19mm	281
20-36	120
Sub total screened	11257
Previous Significant Mx – CXR only	50
Previous TB – CXR only	4
Total screened	11311



	Aust,US, UK,Can	Mel,Pol,PNG	Asia	Africa	Cent/Sth Amer	USSR,Rom, Yugo
>10mm	245	76	411	71	9	25
15-19mm	54	18	154	45	5	6
20-36mm	16	9	68	21	2	4

Given the TST results of the low-burden TB countries (Australia, USA, UK, Canada), it is questionable that if this group were considered not to require baseline screening prior to clinical placement, 315 (25%) of the total 1239 students with TST results 10-36mm would not:

- be aware of their TST status and/or
- have the opportunity to be offered LTB treatment or surveillance.

TB Cases diagnosed as result of baseline HCW student screening = 4 (0.03%)

All 4 cases are female; aged from 27-49yrs old at time of diagnosis. Three of the four cases had previous employment in the health field: 3 student nurses and 1 dental student. They had arrived in Australia between 2 & 21yrs from Philippines; El Salvador; Nepal & Taiwan. All 4 were diagnosed with Pulmonary TB (Smear negative CMTB).

Employment History	Travel History	TST	BCG Hx & Scar	Symptom Y/N	Cough Y/N	Known TB Contact	Self-interpretation of symptoms
Hosp NSW	No travel in last 3 yrs	Prev Mx >10mm NSW	Scar pres	Y	N	Nil stated	?asthma
Nursing Home	El Salvador	24mm+ Ery	Scar pres	N	N	Sister had TB Other TAFE Student – no VNTR/MIRU match	asymptomatic
Nepalese Hospitals	Nepal only	22mm	Scar pres	N	N	Patients in Nepalese hosp	asymptomatic
Nil	Taiwan, NZ	17mm;	Scar pres	Y	Y	Nil stated	Not recorded

Farewell to Beverly Tozer, RN RM

Acting Clinical Nurse Consultant, Queensland Tuberculosis Control Centre, Brisbane

Interviewed by Valerie Chapman, Clinical Nurse, Brisbane

Bev Tozer retired from the Queensland TB Control Centre on 27 April 12, ending twenty three years of committed service to Queensland Health. Not bad for someone who, in 1989, was only asked to do a six week relief for "accouchement" leave!

Queensland-born Bev trained as a nurse at the Royal Brisbane Hospital (RBH) from 1965-69. She moved to Adelaide to do her Midwifery Certificate and returned to RBH for 18 months before joining the Blue Nurses, her introduction to community work. She then had a twelve year break from nursing when she and her husband raised a son and daughter.

Bev joined the Brisbane Chest Clinic to help out for a few weeks! The Chest Clinic was then part of Specialised Health Services under the supervision of the late Dr Anil Patel, whom she describes as an excellent and well-respected doctor. The clinic was situated in George Street in the Brisbane central business district, an address still remembered by many. (In late 2000, the TB clinic moved to its existing premises on the campus of the Princess Alexandra Hospital and not a day too soon, as the old building was condemned.

The Schools Program, (TST for Grade Eight children) continued in south-east Queensland until 1995. As the TB unit covered the whole of south-east Queensland, nursing staff were rostered to do the country schools, sometimes living in motels for up to two weeks at a time. If a schoolchild had a significant TST reading, a home visit was done in the afternoon and close household members were Heaf tested and given a diagram of the four graded reactions for the corresponding drawing to be circled after five days and mailed back to the TB unit. The process of metho-dipping and flaming Heaf guns was replaced by the use of disposable tuberculin syringes in the early 1990's. In relation to the mobile screening vans, Bev remembered a large onsite screening investigation at a university on the Gold Coast where she worked with other staff to provide contact screening for students. There was less documentation then, minimal or nil computer input, letters were individually hand-written or typed and white-out often used! It was not unusual to do two hundred Mantoux tests in a morning and the patients given a little white record card. Bev even remembers having time to catch up with her knitting in quieter moments. These were the good ol' days – oh, how that has all changed!

During her career Bev has had a number of indigenous patients and she got to know their favourite dwellings. If they were not at home for DOT, Bev could be seen navigating local parks looking for them or sitting on a park bench waiting for them to turn up. Some of them affectionately called her "mum" even when they encountered her off duty.

Bev is a great quilter and looks forward to more free time to continue this hobby and other sewing crafts. She is devoted to her twin granddaughters, who live close by. She and Brian are planning a white Christmas in Canada and later a drive to the top end of Queensland. She will be greatly missed by the doctors and nurses at QTBCC and we wish her all the best in her well-earned retirement.

Case Studies presented at GSAHS TB Nurse Network teleconference

The following case studies were presented by rural NSW multi skilled staff (for which TB is part of their role, not their role) at a teleconference to generate discussion amongst the nurses.
Linda Geale: Respiratory Care Coordinator Wagga Wagga CHC.
Liz Craze and Kris Lenehan: Batemans Bay Community Health Nurses.

Case Summary: Case 1: Liz and Kris

- 38yr male, migrated from Thailand 1999 married to an Australian, 2 children 6yr female, 10 yr female.
- Occupation: cook in an aged care facility.
- GP sent patient to Community Health for a TST due to abnormal CXR.
- CXR reported extensive opacity RUL and LUL. Productive cough (persistent) after AB's and ventolin. Weight loss.
- Hx: Brother TB 1995, tested at time TST negative, immigration NAD.
- GP was advised re gold standard for TB diagnosis, sputum's X 3 suggested plus referral to respiratory physician. Area TB coordinator contacted and informed.
- TST 25mm
- Sputum's x 3 smear +ve AFBs, later confirmed MTB.
- Isolated at home educated. Certificate provided as had limited sick leave.
- Transferred to a Territory Hospital.

Contact Tracing:

- Case anxious about giving names and nurses attending work place. Concerned re stigma and job security.
- Had no contact with residents, but as aged TST was considered not an option.
- Nurse Manager informed and reminded re confidentiality.
- Concerns are family and work mates in the kitchen.
- Family members screened wife TST 12mm, 10yr 7mm, 6yr 4mm

Issues:

- Regular GP on leave fill in GP not sure of history.
- Poor discharge history re meds. No scripts.
- Time consuming, liaising with different clinical groups and follow up.
- Long weekend at time of suspected diagnosis, difficulties in getting action.
- Confidentiality and stigma concerns.
- Access to Peadiatrian for the children.

Lessons learned:

- Communication: very important, needs to be clear and actioned.
- Education of other HCW's especially CHN a must, never assume knowledge

Case Summary: case 2: Linda Geale

- 26yr male Sudan born, refugee camp Kenya in Australia ~5yrs
- Past history Hep C
- Hx of 2 weeks haemoptysis, fever, lethargy.
- 4 visits to GP, given AB's final visit sent to Base Hospital provisional diagnosis? Pneumonia
- A&E waiting room triaged pneumonia no precautions.
- CXR cavitation lesions ?TB ?Miliary TB. Respiratory precautions instigated many hours after admission to A&E ward.
- Sputum's smear +ve. Later confirmed MTB.
- Physician suspects MDRTB due to extensiveness of disease process and history.

Contact Tracing:

- Reluctant to give contacts takes detective work.
- Difficulty in getting in touch with contacts required lateral thinking.
- Use of workplace Nurse.
- Detective work discovered had been inmate on remand for ~2 weeks while infectious……changes the contact tracing and now involves Justice Health and Correctional Services. Need to move carefully, education involvement of other agencies.

Issues:

- Getting names of contacts and contacting them.
- Contacts maintaining appointments and medication regime.
- LTBI treatment, monitoring, compliance, side effects "I'm not sick no point in taking medication"
- Involvement of different agencies with different agendas.
- Transfer to another state while on treatment

Lessons learned:

- Do yourself…all the follow up
- DOCUMENTATION, make sure you have good documentation of process, who you talk too and arrangements agreed upon.
- Transfer of medical notes so confirmation of care is as seamless as possible.
- Persistence, ask questions a number of ways.
- Be a good detective.

TB Research / Projects of Interest received to date

TOPIC	AUTHOR / LEAD	Collaboration
Quality-assurance review of data over a 3 year period using QuantiFERON TB-Gold test by the Victorian TB team as an adjunct for the diagnosis of latent TB infection in contacts	Karen Goebel, PHN Victoria	
Is there a need for TB screening of HCWs in low prevalence country	Carmel Cochrane, Brisbane	
Development of a national database for TB brochures/fact sheets and consents	Carmel Cochrane, Brisbane	A. Nicholls
Assessment of nurse-led TB-related assessment clinics	Carmel Cochrane, Brisbane	A. Nicholls
Outcomes of molecular epidemiological typing for Qld notified cases 2002- 2011	Carmel Cochrane, Brisbane	
Development of a standardized National TB Nursing Training Package	National working group to be developed	C. Cochrane P. Banner ?Others
TB models of Care across Australia: a descriptive analysis	Annmaree Nicholls	?Others interested
DOTs Programs: nurses understanding of DOTs, delivery of DOTs	Annmaree Nicholls	C. Cochrane ?Others interested

ANSWERS: Kanamycin, Clofazamine,Gatifloxicin,Ethambutol, IHD, Pyrazinamide, Prothionamide.