



# Metabolic monitoring in New Zealand DHBs' mental health services

GP17: RNZCGP Conference for General Practice  
Dunedin, 28 July 2017

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# The study

- An audit of DHB “metabolic monitoring” policies
- Best practice guideline developed from literature as an audit tool
- DHB polices audited against the best practice guideline

# Best practice standard

Alberti et al (2009) definition of metabolic syndrome

- Waist circumference (with ethnic variations)
- Blood pressure  $\geq 130$  syst;  $\leq 85$  diast.
- Triglycerides  $\geq 1.7$ mmol/L
- HDL-Chol  $< 1.03$  (M);  $< 1.29$  (F) (mmol/L)
- Plasma glucose  $\geq 5.6$  mmol/L

We added:

- Frequency of screening
- Specified interventions
- A definition of MS
- Collaboration with primary care
- Identified clinician to monitor
- An auditing procedure



# Results

- 100% response rate (eventually!)
- Ashburn Clinic also included at their request
- 70% of DHBs (n=14) and Ashburn have some form of metabolic monitoring police

# Presentation of policies

- Very different formats and quality
- Some very clearly laid out; others not so much
- Some are very discursive
- Not always internally consistent
- Some very complex algorithms
- Different monitoring for different antipsychotics
- Some much more user friendly than others



# Metabolic parameters

- Three policies included a definition of MS
- Five policies included each of the 5 Alberti criteria
- Two of these five included a complete set of cutoff values
- Most cutoffs were at variance with the Alberti criteria
- Various frequencies of measurement
- No policy specified action to take if MS identified



# Interventions

- 8/14 specified interventions for individual abnormal results
- Interventions included
  - Education on health lifestyle (8)
  - Liaison/referral to GP (5)
  - Metformin (3)





# Collaboration with primary care

- Mentioned in 11/14 policies
- Active steps to promote PC enrolment (6)
- Ensure GP is notified of
  - Commencement of antipsychotic medication
  - Metabolic status
  - Current interventions
  - Other investigations

# Clinician responsible for monitoring

- Referred to in 11/14 policies
- Various referred to:
  - Psychiatrist
  - GP
  - RN
  - Key worker
  - Case manager
  - “All clinical staff”
  - Consumer decides: GP or MH service RN



# Auditing procedure

- 4/14 policies referred to auditing procedures
- 6 – 12 month intervals
- 2x DHBs specified annual random sample of 10 files



# Conclusions

- Many DHBs either do not have MM policies, or the policies are not adequate
- Lacking or inadequate policy probably contributes to low levels of monitoring
- Metabolic monitoring is often embedded in larger “physical health” policy
- NZ experience in this area is consistent with international literature



# Incidental finding

- Many DHBs had developed metabolic initiatives, sometimes in one part of the service
- Initiatives driven by interested clinicians
- Many DHBs expressed interest in the study
- ...and asked for results to be shared (in progress)
- Many DHBs expressed need for guidance

# What we didn't do

- Didn't survey NGOs, PHOs or primary practices – focus was DHBs
- Didn't seek consumer or clinician perspectives or experiences
- Didn't review wider physical health policies
- Consider cost and funding issues

# The literature

- Mental Health Nurses are ideally placed to screen and monitor the physical health needs of their patients and to make referrals where necessary (Gray et al. 2009). (From Blythe & White, 2012, p. 194).
- Healthcare Commission (HC) (HC 2008) point out the need for mental health services to focus on providing a broader range of physical health checks as only 56% of care records indicate some form of physical examination (Blythe & White 2012)

(Howard & Gamble, 2010).

- Retrospective audit of notes (n=28) found 50% did not contain any information regarding patients' physical health needs.
- the majority of MHN were not aware of any policies or guidelines relating to the physical health needs of people with SMI, which is surprising after over 5 years of UK policy and guidelines having been implemented.



# Recommendations

- A one page policy setting out
  - factors to be measured & frequency
  - Key interventions if MS identified
  - Clinician responsible for monitoring
- A 'metabolic register' which would record every consumer within a DHB prescribed antipsychotic medication (1<sup>st</sup> & 2<sup>nd</sup> generation)
- Register shared (? "co-owned") with primary care
- Clinician responsible may change with referral to and from services but the monitoring programme continues

# A nurse-led model of metabolic monitoring

- The 'metabolic register' would be managed by a nurse, whether in mental health service or in primary care
- The programme would develop a collaborative model
- Nurse would monitor the monitoring, maintain the register and record results
- Nurse would ensure that interventions are offered when need is triggered



# Next steps

- Paper prepared for publication, NZMJ
- Further review of model by advisors
- One page summary to DHBs and Ashburn Clinic
- Further investigation of feasibility of a nurse-led model (possible masters project)

# Acknowledgements

- Funding for Aimee Staveley's summer scholarship from the Faculty of Medical and Health Sciences; University of Auckland
- DHB staff who provided policies and discussed issues they were experiencing

# References

- Alberti, K. G., Eckel, R. H., Grundy, S. M., Zimmet, P. Z., Cleeman, J., Donato, K., ... & Smith, S. C. (2009). A joint interim statement of the International Diabetes Federation Task Force on Epidemiology and Prevention; National Heart, Lung, and Blood Institute; American Heart Association; World Heart Federation; International Atherosclerosis Society; and International Association for the Study of Obesity. *Circulation*, 120(16), 1640-5.
- Blythe, J., & White, J. (2012). Role of the mental health nurse towards physical health care in serious mental illness: An integrative review of 10 years of UK literature. *International Journal of Mental Health Nursing*, 21(3), 193-201.
- Coates, D., Woodford, P., Higgins, O., & Grover, D. (2017). Evaluation of a general practitioner-led cardiometabolic clinic: Physical health profile and treatment outcomes for clients on clozapine. *International Journal of Mental Health Nursing*. Epub ahead of print.
- Howard, L., & Gamble, C. (2011). Supporting mental health nurses to address the physical health needs of people with serious mental illness in acute inpatient care settings. *Journal of Psychiatric and Mental Health Nursing*, 18(2), 105-112.
- Osborn, D. P., Nazareth, I., Wright, C. A., & King, M. B. (2010). Impact of a nurse-led intervention to improve screening for cardiovascular risk factors in people with severe mental illnesses. Phase-two cluster randomised feasibility trial of community mental health teams. *BMC Health Services Research*, 10(1), 61.