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Dear Ms Bartholomew

Thank you for providing AMA Queensland with the opportunity to give feedback to the Spirometry for the Coal Mine Workers' Health Scheme.

AMA Queensland is the state's peak medical advocacy group, representing over 6000 medical practitioners across Queensland and throughout all levels of the health system. We value and believe in the work doctors do, and have previously advocated publicly on issues of public health, vaccination and medical regulation.

There is no doubt that improvements can be made in the conduct of spirometry in community care settings. The thrust and recommendations of the Monash report are generally accepted, with some important qualifying suggestions.

It must be noted that the greater the credentialing/accreditation requirements placed on nominated practices/individuals to perform spirometry, the more inaccessible it will become as fewer organisations or health care providers are subsequently able to attain the standards required.

There is no question greater use of spirometry as a screening tool should be encouraged, bearing in mind more detailed lung function assessment would always be required if clinical concerns or unexplained abnormalities persisted. Therefore, the desired outcome is for screening to be expeditiously and competently applied as frequently as possible in local and workplace settings by nominated and appropriately trained individuals, with unimpeded and pertinent escalation of testing to more advanced, fully accredited respiratory laboratories where doubt or concern exists. To rely solely on screening spirometry for formal diagnosis and assessment is inappropriate and more detailed testing should be undertaken.

AMA Queensland will now address the specific features of the proposed new scheme individually.

- 1. An established organisation (the Thoracic Society of Australia and New Zealand (TSANZ) or similar body) with experience in administering spirometry accreditation, with strong expertise in respiratory medicine, and governance and resources, to administer an accreditation program for spirometry**

AMA Queensland recognises the expertise of the TSANZ in respiratory function testing, laboratory accreditation, governance and operation. They already possess applicable standards, which complement published international clinical guidelines (American Thoracic Society/European Respiratory Society). It is

logical therefore for this association to administer an accreditation program for spirometry applicable to those practices and health care providers conducting coal board medical examinations.

We envisage the proposed accreditation standards being a subset of the existing accreditation standards for respiratory laboratories, rather than representing a unique or alternate set of standards. Conformity is critical, so that individual moving between testing facilities (whether involved in coal board medical examinations or not) would be faced with common standards across all testing facilities.

The training of health care professionals in the conduct of spirometry and maintenance of equipment is a critical function. This training could be conducted under the auspices of the TSANZ. It is acknowledged however that credible training is currently offered by other organisations, including Queensland Health. The Queensland Health training program was developed by the respiratory clinical network and has operated for several years now with good results. This training course should be adequate for health care providers seeking to conduct screening spirometry as part of coal board medical examination and allow them to pass the proposed accreditation standards. Where full or complicated respiratory function testing is required, a formal and fully TSANZ accredited respiratory laboratory should undertake the testing.

## **2. Nominated Medical Advisor (NMA) practices applying for accreditation must meet standards around spirometry training, equipment, taking and interpretation of spirometry and records management**

The proposed accreditation standards as listed on page 16 of the discussion paper are appropriate and achievable for NMAs wishing to offer spirometric assessment, provided they had access to appropriate training, as outlined above.

The issue of interpretation of spirometry is, however, a vexed one. It is agreed that NMAs should have a rudimentary understanding and ability to report spirometry. However, some studies can be quite complex (for example, in cases of mixed pathology) and it is not feasible to expect NMAs to be able to generate a nuanced report at the standard of a respiratory physician – the usual reporting authority as per the MBS. If spirometric assessments and reports are to be submitted for assessment, the criteria by which they would be judged and the threshold for being deemed proficient would need to be clearly enunciated and agreed upon.

There is considerable scope for inter-individual variation in some aspects of reporting, such as instances where mid-expiratory flow values are significantly reduced but spirometric values remain broadly within the normal range. International guidelines are not completely settled on how to universally resolve marginal abnormalities or identify abnormality within the ‘normal’ range.

It must also be recognised that the serial assessment of spirometry is crucial and in some cases the greatest utility of the test. In other words, a worker may have supra-normal lung function and then dip slightly below average but still be within the population definition of the ‘normal’ range – whereas this disease behaviour might clearly denote a significant loss of function.

The conclusion therefore is that spirometric assessment, like all medical tests, is not infallible and therefore the training and accreditation requirements should not suggest it is. There is however a clear need to promote a system of medical review that easily allows an escalation of testing requirements to fully TSANZ accredited respiratory laboratories with respiratory physician oversight for more detailed and further testing. Scenarios where this would be potentially required include –

- The presence of symptoms but ‘normal’ spirometry
- Significant decline is recorded in serial spirometric assessments, as defined by ATS/ERS guidelines, but the worker is either asymptomatic or within the ‘normal’ spirometric range for their gender, age, height and weight.

- Disproportionate symptoms not otherwise explained by simple spirometry where more extensive respiratory function testing is required to verify this result and assess other dimensions of lung function e.g. lung volumes and gas transfer.

### **3. The organisation also endorses training providers for the program**

AMA Queensland believes it is important that appropriate training providers are supported, as was outlined in our response to Part One. If the TSANZ is endorsed to develop accreditation standards for the medical boards, then this same organisation could develop a program for endorsing training providers.

It should be noted that scientists usually employed by a fully accredited TSANZ respiratory laboratory would not require further education but could be immediately endorsed as trainers. If other individuals without full TSANZ accreditation wished to train NMAs in providing spirometry, there should be a process for ensuring the competence of these individuals/organisations in providing this training. This competence would also need to be verified periodically to ensure ongoing compliance. Again, current full respiratory laboratory accreditation would be more than sufficient to maintain competency to teach spirometry.

The training in spirometry offered by Queensland Health is, as far as AMA Queensland is aware, provided by scientists usually employed at large tertiary teaching hospitals with fully accredited respiratory laboratories. As such, we would regard these individuals as amply qualified to immediately be able to offer spirometry training to NMAs in order for them to competently conduct coal board medical examinations.

### **4. Audits (including on-site audits as required) undertaken by approved program provider**

On-site audit assessments would appear to be similar to re-accreditation visits. In other words, just as fully TSANZ accredited respiratory laboratories undergo periodic re-evaluation to ensure ongoing compliance, it is envisaged that NMAs conducting coal board medical examinations would be subject to similar assessments, at the discretion of the accrediting team. If the accrediting standard is developed by the TSANZ, then this body would be most appropriate to administer the accreditation process. Accrediting teams of training providers or fully accredited laboratory scientists could undertake this task, as currently occurs with TSANZ respiratory laboratory accreditation. Therefore, the accreditation process for NMAs conducting spirometry as part of CBME is a simplified, but diminished version of the full respiratory function laboratory accreditation process currently operating under the auspices of the TSANZ.

### **5. Regulations amended to provide that only accredited practices can conduct spirometry for the purposes of the Health Scheme**

It is difficult for AMA Queensland to provide a detailed response in regard to this proposal without seeing what the amended regulations look like in their draft or final form. We support the proposal in principle and will withhold full comment until we see them. However, to assist the Department in their drafting of the amended regulations, we provide the following comments which we hope will inform their work.

It is broadly supported that accredited practices only conduct spirometry for the purpose of the Health scheme. It is important however that the accreditation requirements do not result in spirometry being less accessible to NMAs and workers. The requirements of training and accreditation must be balanced against access and cost.

It is critical to stress that spirometry was never designed to identify all lung function abnormalities. It is therefore important the standards and guidelines emphasise the requirement for referral of appropriate workers, as suggested above, for more detailed lung function assessment in a fully accredited TSANZ respiratory laboratory. Appropriate escalation of difficult or marginally abnormal cases for more detailed assessment is common practice throughout medicine and should be enshrined in CBM spirometric guidelines. It is known, for example, that emphysema (loss of lung tissue) alone can be the sole or predominant manifestation of coal

worker's pneumoconiosis, but this often occurs with normal spirometry. In such cases a detailed full lung function assessment (spirometry, lung volumes, gas transfer) would easily identify the functional abnormality.

**6. The department will also implement a revised model for nominated medical advisers (e.g. qualifications, experience) in accordance with the Monash review recommendations**

AMA Queensland largely supports recommendations 7 and 8 of the Monash Review. However, we do have some concerns with recommendation 8.2.6 and 8.2.7. It is important that we outline these concerns as the Department develops and implements this revised model for NMAs.

We appreciate there has been some commentary and concern that Australian radiologists are somehow less well trained than US "B readers". Some argue that failures of prior diagnosis reflects a failure of local radiology expertise. This view has been most forcefully put forward by the Construction Forestry Mining & Energy Union (CFMEU), which has sent the CXRs of members to Professor Bob Cohen at the American National Institute for Occupational Safety and Health (NIOSH) for diagnosis, where a number of cases – previously identified as emphysema – were reported as coal workers pneumoconiosis (CWP). The Monash Review also sent 248 CXRs to Professor Cohen for consideration by NIOSH "B-Readers".

Much has been publicly made of the fact that of these 248 CXRs, 18 were reported as having "opacities consistent with simple [early stage] pneumoconiosis". Local examination of the same CXRs had indicated that only two had pneumoconiosis. However, what is seldom reported in relation to this finding is that the NIOSH B-readers were unable to come to a definitive analysis in *any* of the 18 cases. In *each* case it was reported that the opacities identified may have been due to emphysema rather than CWP. Accordingly, they were referred back to Queensland medical specialists – who have access to patient histories and CT examination – for definitive diagnosis.

This supports our view that Australian radiologists are world class and with adequate government support able to diagnosis CWP. Australian radiologists have completed a minimum of five years supervised post-graduate vocational training and have passed an extensive series of written and oral examinations to report on medical imaging studies in Australia. Further, they must participate in ongoing training and education on an annual basis as required by both the Australian Medical Board and the Royal Australian and New Zealand College of Radiologists. The Royal Australian and New Zealand College of Radiologists (RANZCR) has taken appropriate steps to have CXRs taken in association with the Coal Mine Workers' Health Scheme examined by appropriately qualified radiologists with specialist expertise in pneumoconiosis diagnosis with the public release of a "Register of Clinical Radiologists for CWP Screening". We believe this is an appropriate first step whilst further training pathways of radiologists on the registry is finalised. AMA Queensland is also aware that Queensland radiologists are in the process of completing the NIOSH training program.

It must be emphasised that chest X-rays represent only a screening tool and as for lung function, ambiguous or concerning cases would routinely be sent for high resolution CT scans which give much greater definition of the lung parenchyma. The various inhalational exposure the majority of mine workers have often necessitates a high resolution CT scan and this test, not the chest X-ray, should be regarded as the most sensitive and useful test in all cases of pneumoconiosis. It is therefore appropriate to emphasise the importance of screening chest X-rays, but not at the expense of high resolution CT scanning as the gold standard. AMA Queensland has complete confidence in Australian radiologist skills in interpreting CT chest scans.

We would agree that it would be beneficial for NMAs to have a working knowledge of ILO CXR classification, but the Monash review recommendations use the words "instruction in" which makes it unclear.

The medical profession takes great pride in its collegiate nature and any NMA can always pick up a phone to a respiratory physician or radiologist to ask for their professional opinion. What is of greater importance is that NMAs act appropriately on the radiologists report once it is provided to them. It would be unnecessary and inappropriate for NMAs to generate this report themselves.

## Conclusion

In closing, AMA Queensland broadly supports the proposals of the new Coal Workers Spirometry Scheme. However, it is important that the Department liaise closely with the TSANZ and AMA Queensland while developing the specifics of the scheme because, as we have hopefully demonstrated in our submission, there are some subtle nuances to spirometry that will need to be taken into account, and the professional medical advice of associations will be invaluable in making sure these are taken into account.

AMA Queensland's main concerns with the proposed scheme rest primarily with the proposed amendments to the regulations and the proposal to provide training to NMAs to provide CXR reports or reliably interpret all spirometry results. While the former can be allayed by asking associations like ours for advice as the amendments are drafted, the latter is unnecessary and inappropriate when a class of medical professional with more training and experience in performing this task is available and ready to assist NMAs in this work. The interpretation of spirometry can be quite complex and difficult and it is not realistic to expect NMAs to be able to generate a nuanced report at the same standard of a respiratory physician.

Thank you again for providing us with the opportunity to provide the committee with a submission on this issue. If you require further information or assistance in this matter, please contact Mr Leif Bremermann, Senior Policy Advisor, on 3872 2200.

Yours sincerely



Dr Chris Zappala  
**President**  
**Australian Medical Association Queensland**