

Accreditation Experiences

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Health
Pathology

Government Analyst - 1880

- Macquarie Street, Sydney

Determine the **cause of death** in suspected poisoning cases

Analyse food, drugs & water to ascertain suitability for human consumption = **Public Health**

Provide analytical services to **Government bodies** & affiliated institutions

- Sydney

Population 480,000; Sydney Uni = 50yo; QVB – new; Bubonic plague



Health
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Health
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Cause of Death

Forensic Medicine –
Coroners' Court

Toxicology – Coroners'
Court

Public Health

Food Microbiology –
NSW Food Authority

Food Chemistry –
NSW Food Authority

Water Microbiology –
NSW Public Health
Units

Pesticides – NSW
Public Health Units

Trace element
analysis – NSW Public
Health Units

Government Bodies

Drug analysis - NSW
Police

Chemical Criminalistics
(Arson, glass & paint
matching) – NSW Police

DNA analysis – NSW
Police

Toxicological urine
analysis - Courts



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Current Accreditations

ISO/IEC 17025

- Biological Testing, 1991
 - Food Microbiology, Water Microbiology, Molecular Microbiology, Legionella
- Chemical Testing, 1992
 - General Chemistry, Clinical & Environmental Toxicology, Trace Inorganics
- Forensic Science, 1999
 - Toxicology – coronial & drug/driving, Forensic Biology, Illicit Drugs Analysis, Chemical Criminalistics

ISO 15189

- Medical Testing (forensic pathology), 1994



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NATA Assessments – Different standards

- Which one to use?
- AS / ISO 15189?
- ISO / IEC 17025?
- AS 5388 series?



NATA assessment - Conditions

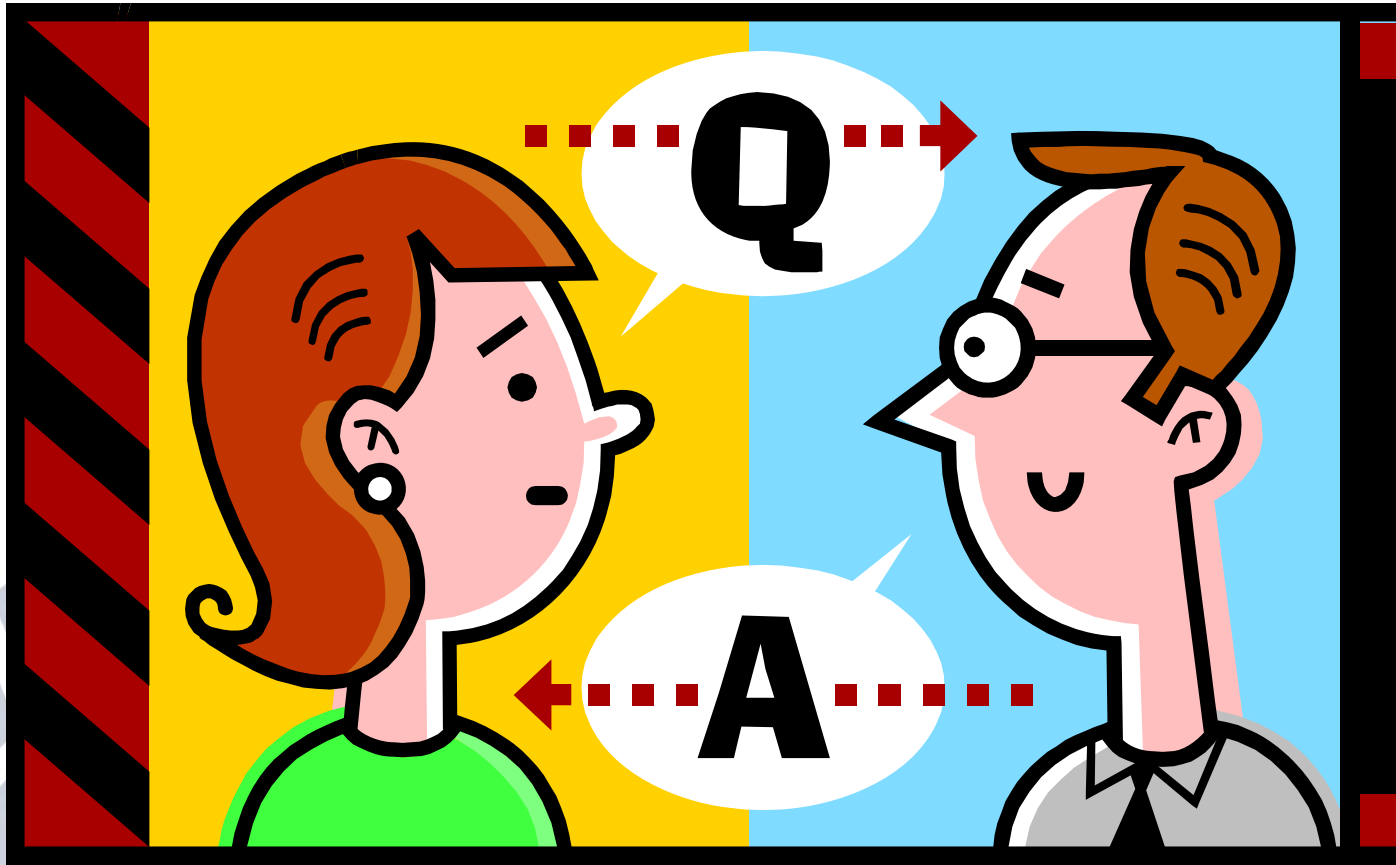


NATA assessment – Document currency

- Never ending updates?



NATA assessments – Signatory interviews



Scope of Accreditation – Chemical Testing

.04 Meat and meat products

listed as determination(s) by technique(s) using method(s) -

Ash and moisture by thermogravimetric analyser (TGA) using AOAC 925.09, 926.05, 930.22, 935.36, 935.39; AS 2300.1.1, 2300.1.5 and in-house F50.41

Erythorbic acid by HPLC using in-house F1.1

Fat by classical using AOAC 922.06, 954.02 and in-house F50.03

Meat content in meat pies by classical using in-house M7.2

Meat content in meat products other than meat pies by classical using in-house M12

Nitrate; nitrite by HPLC using in-house M15

Nitrogen by Dumas combustion using AS2300.1.2.1

Nitrogen (kjeldahl) by classical using AOAC 977.14, 981.1 and in-house M1

pH by classical using in-house M10

Phosphorous by classical using AOAC 969.31 and in-house M9

Starch by classical using in-house M13

Water activity by chilled-mirror dewpoint (water activity meter) using AOAC 978.18 and in-house F50.40



Scope of Accreditation – Biological Testing

For the following determinations -

Food

Coliforms, coliforms (thermotolerant), plate count, yeasts and moulds

Bacillus cereus, *Campylobacter jejuni*,

Campylobacter, *Clostridium perfringens*,

Enterobacteriaceae, *Enterobacter sakazakii*, *Escherichia coli*,

Listeria, *Listeria innocua*, *Listeria monocytogenes*, *Salmonella*, *Staphylococcus* (coagulase producing strains),

Vibrio parahaemolyticus, *Vibrio vulnificus*

By the methods of -

MF1a, MF1b, MF3a, MF3b, MF4a, MF4b, MF4c, MF5a, MF5d, MF5f, MF5g, MF7, MF9, MF9B,

MF10a, MF10b, MF12a, MF12b, MF13, MF16a, MF16b, MF20d, MF20h, MF22a, MF22b, MF29a,

MF29b, MF29c, MF30, MF31, MF32, MF33a, MF33b

MM1, MM2 (molecular biology methods for the determinations of *Listeria* spp., *Listeria monocytogenes* and

Salmonella)



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Scope of Accreditation – Forensic Science

18.02 Forensic toxicology

.01 Alcohol testing

.03 Drugs in drivers

.04 General toxicology



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Forensic Medicine?

- AS ISO 15189?
- ISO / IEC 17025?
- AS 5388 series?
- “Forensic Pathology – Code of Practice and Performance Standards in NSW” (NSW Health PD2012_049)?
- NPAAC
 - Requirements for medical pathology services (2013)
 - Requirements for the facilities and operation of mortuaries (2013)



