

Management of infectious diseases in Belgium

Results of a BVIKM-SBICM inquiry
2004

Aim of our inquiry

- To obtain data on the current organisation of ID management in Belgium in and outside of the hospitals
- To identify shortcomings, opportunities for better organisation
- To map the aspirations, and view of the future of clinical microbiologists and ID specialists.
- To identify key issues in the formation of future clinical microbiologists, and ID specialists.

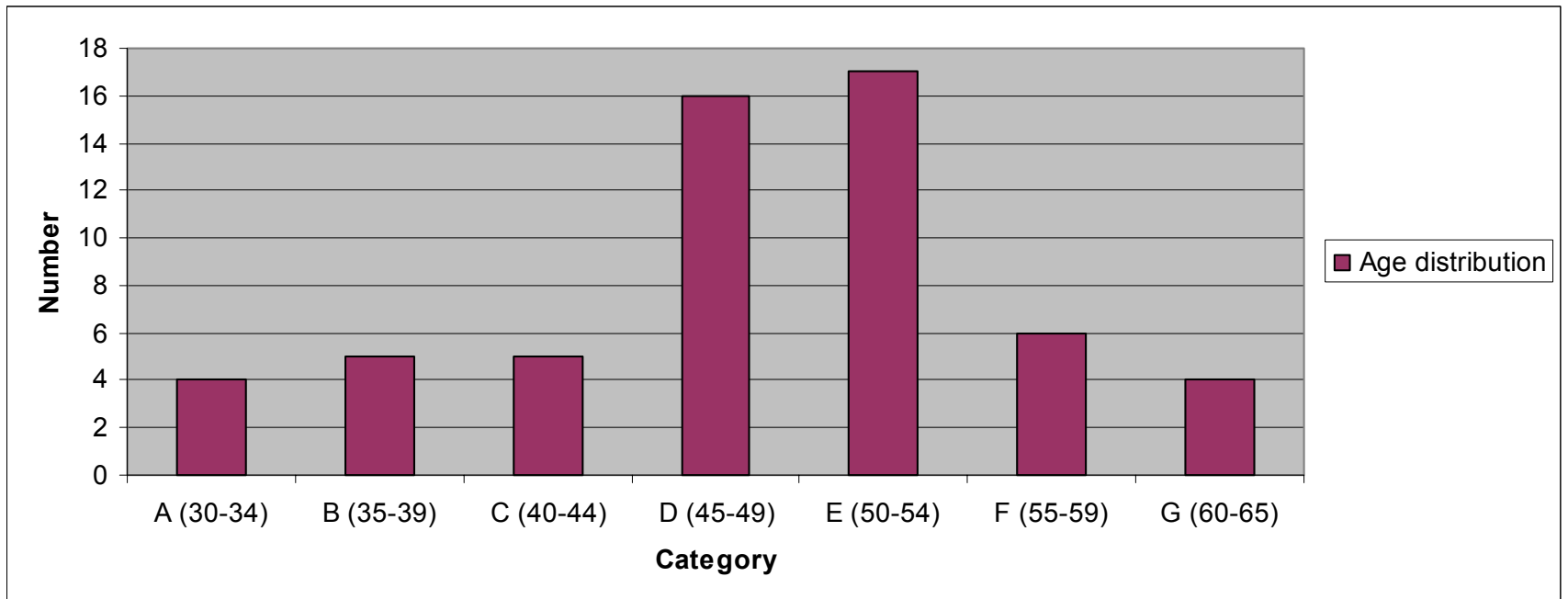
Method of the inquiry

- Oral interview (specialist in training) with sample of clinical microbiologists (CM), and infectiologists (ID)
- Defined number of CM and ID per province
 - Per 10 interviews: 7 CM (5 hospital-based and 2 private-lab based) and 3 ID
- Total number: 95 interviews (79 fully analysed)
 - 68 CM and 27 ID

content

- Demographic data
- Working environment
- Training
- Future

Demographic data: CM



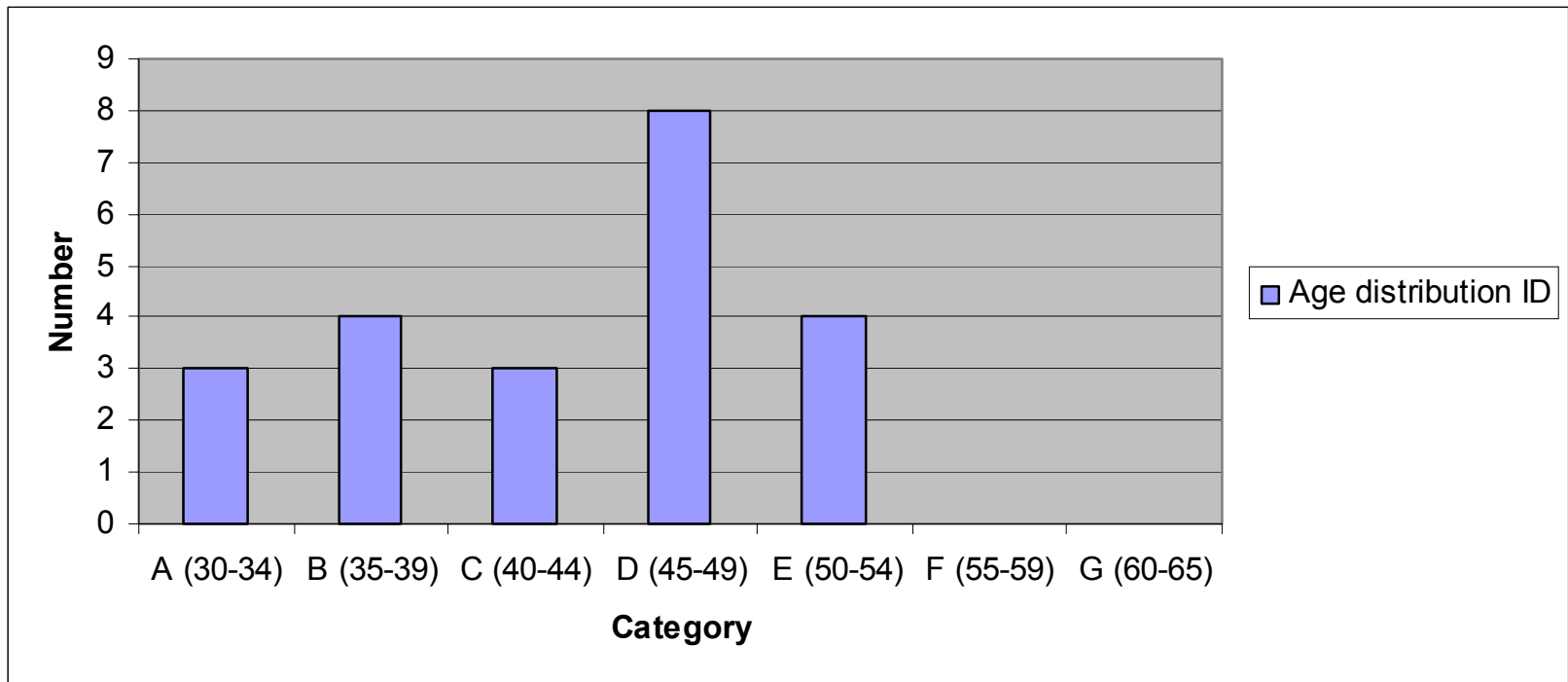
Demographic data: CM

- Full-time: 20/57 vs. Part-time: 37/57
- Male: 39 vs. female: 18
- Doctor: 37 vs. pharmacist: 20
- Hospital Lab:
 - 18/45 full-time CM vs. 27/45 part-time CM
 - 25/27 part-time CM spend 30-60% or more of their time in CM
- Non-hospital lab:
 - 2/12 full-time vs. 10/12 part-time CM
 - 6/10 part-time CM spend 30-60% or more of their time in CM

Demographic data: CM

- 37 out of 57 work part-time in CM
 - what are their other activities
 - Other specialties of clinical biology : 27
 - Hospital hygiene: 17
 - Others: 15/37
 - Management
 - Quality Control

Demographic data: ID



Demographic data: ID

- Full-time: 7/22 vs. Part-time: 15/22
 - 6 out of 15 spend <30% in ID
 - 6 out of 15 spend 30-60% in ID
 - 3 out of 15 spend >60% in ID
- Male : 18 vs. female: 4
- Officially recognised speciality
 - General Internal medicine: 17
 - Pneumology: 2
 - Paediatrics: 2/3
 - Clinical Biology: 1/3

Demographic data: ID

- 15 out of 22 work part-time in ID
 - what are their other activities:
 - Other domains of Internal Medicine: 10
 - Hospital Hygiene: 7
 - Others: 3/15
 - Clinical microbiology
 - AB policy

Working environment (CM)

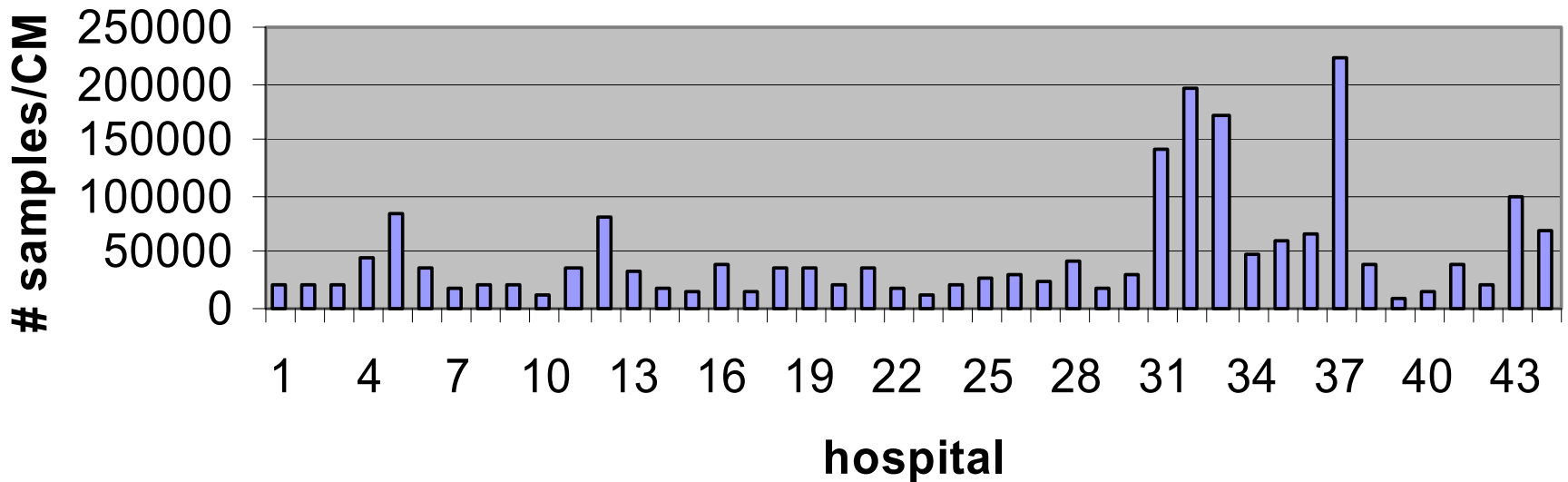
- Hospital Lab
 - 45/57 (34 MD, 11 Pharmacist)
- Non-hospital Lab
 - 12/57 (3 MD, 9 Pharmacist)
- Number of Lab Technicians (Full Time Equivalents)
 - Range: 1-40
 - Mean: 13.12
- Separate lab microbiology:
 - Hospital Lab: 10/45
 - Non Hospital Lab: 1/12
 - Shared infrastructure: reception, serology, logistics

Working environment (CM)

- Number of microbiology samples/year
 - Range: 12.000-350.000; Mean: 59.963
- Sample distribution according to subspecialty
 - Bacteriology: >60% of samples in 47 out of 57 labs
 - Virology: < 30% of samples in 47 out of 57 labs
 - Mycology: < 10% in 42 of 56 labs and Parasitology: < 10% in 49 of 57
- Sample origin
 - Urinary: hospital labs: 10-60%; non-hospital labs: 30-60% or more
 - Respiratory: hospital labs: 10-30%; non-hospital labs: 10- 30%
 - Sterile body fluids: hospital labs: <10-30%; non-hospital labs: < 10%
 - Wound fluids + swabs: hospital labs: <10-30%; non-hospital labs: < 10%
 - Faecal: hospital labs: <10-30%; non-hospital labs: < 10%

Working environment (CM)

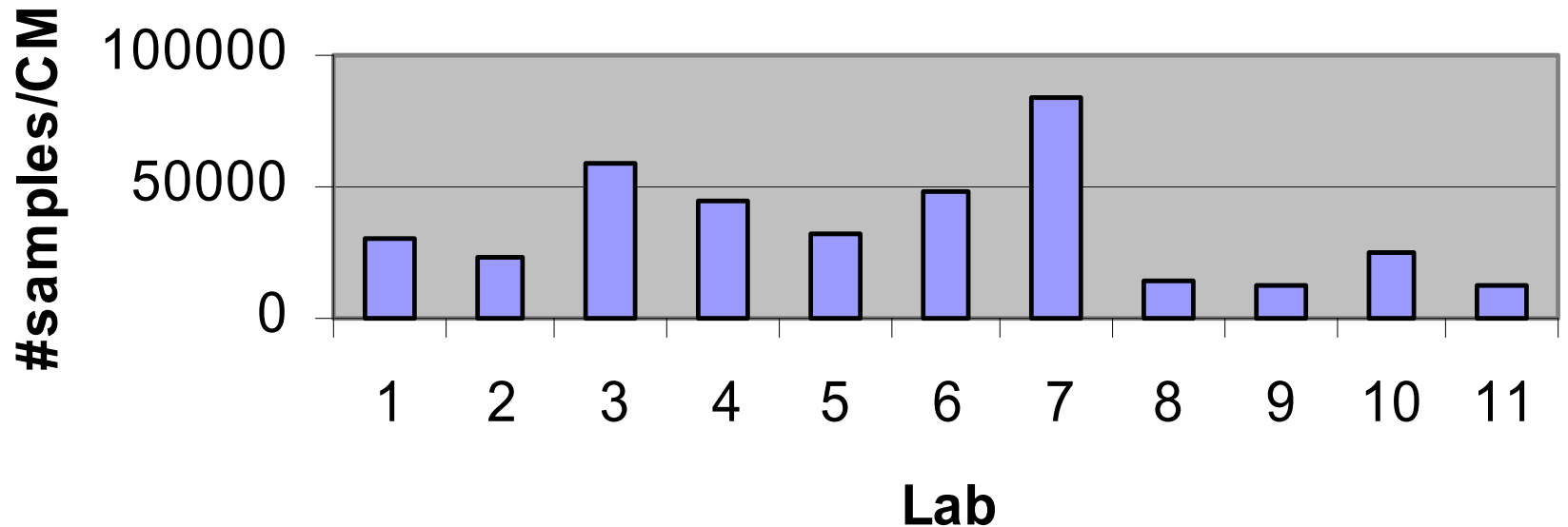
Number of samples per CM (hospital)



- Range: 8000 - 223333
- Mean: 47403

Working environment (CM)

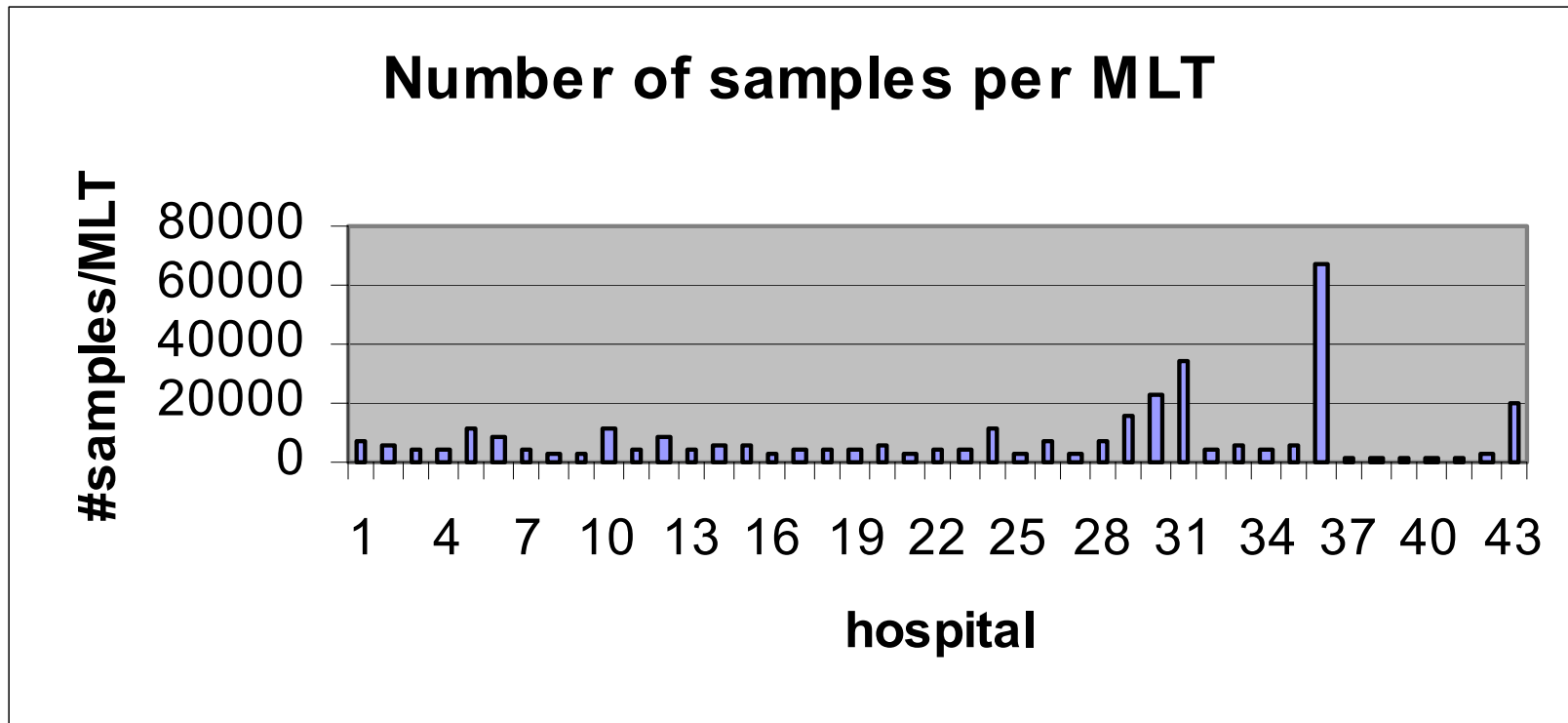
Number of samples per CM (Private Lab)



- Range: 12000 - 83333

- Mean: 35003

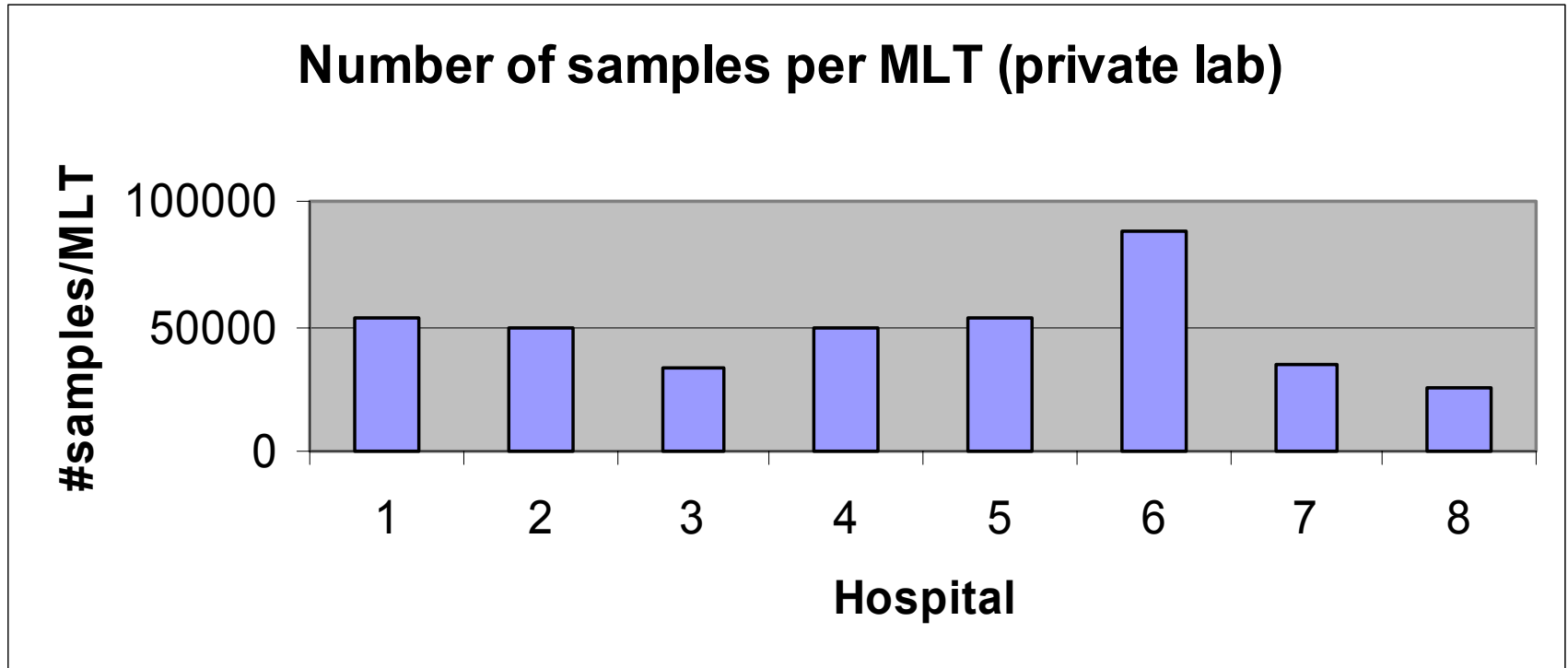
Working environment (CM)



- Range: 909 - 67000

- Mean: 8094

Working environment (CM)



- Range: 25000 - 87500

- Mean: 48378

Working environment (CM)

- Daily activities :
 - Test indication and interpretation
 - Hospital lab: daily
 - Non-hospital lab: daily
 - AB choice
 - Hospital lab: daily
 - Non-hospital lab: daily to weekly
 - Member of the committee for HH
 - 37 out of 44
 - time devoted: <10-30%
 - Other activities for HH: surveillance cultures (42), epidemiological analyses (34), clonality testing (16)

Working environment (CM)

- Work as microbiologist
 - Member of the AB policy committee
 - 37 out of 44
 - Time devoted: <10-30%
 - Other ID related activities
 - 21 out of 57 ; ward rounds(16), bedside consultancy(5)
 - Time devoted: < 10%
 - Other activities
 - 21 out of 57 ; teaching, research, lab management, boards/meetings, ref lab, presentations, administration.
 - time devoted: < 10% -60%

Working environment (ID)

- Is there a separately functioning ID unit in your hospital
 - yes: 4/22 ; No: 5
 - semi-independent: 13 - General Internal Medicine (8), Pneumology (3), Endocrinology (1)
- Do you run an outpatient clinic for ID
 - Yes: 13/21 ; No: 8
 - How many consultations/year?
 - Range: 180-12000 : Mean: 1943
 - time devoted : 10-60%
- Do you offer ID consultations to other departments
 - yes: 20/21 ; No: 1
 - Which departments: all (15/20)
 - Frequency: daily
 - time devoted : < 10% -30%

Working environment (ID)

- Member of HH committee
 - yes: 13/21 : no: 8
 - Time devoted : < 10%
- Member of AB committee
 - yes: 20/21; no 1
 - Time devoted: < 10% -30%
- Other ID-related activities
 - yes: 13/21; No: 8/21 (teaching, boards/meetings, HIV clinic)
 - Time devoted :< 10%: 9/13

Working relationship CM/ID/HH

- Reaction of colleagues to work as ID
 - Majority actively asking advice
 - Majority willing to accept and act on advice
 - Minority reluctant, because they don't feel the need
- Contacts between CM, ID and HH
 - Regular daily contacts (50 out of 72)
 - Only at official meetings (8 out of 72)

Training: has your training prepared you for all the tasks that you are performing now ?

- CM
 - Yes: 23 answers
 - No: 36 answers
 - Not enough management/financial training: 6
 - Not enough clinical training (infectio-AB counselling): 5
 - Not enough molecular diagnostics: 3
 - Remarks: 3 years is not enough (x3): training is not structured, too theoretical

Training: how have you acquired the knowledge to perform tasks that you were not prepared for ?

- CM
 - Supplementary training: 35
 - Scientific societies: 33
 - Boerhave : 12
 - Biomérieux: 25
 - Government (AB policy training) : 16
 - Others: 4 (abroad – Biodisk)
 - In-house training: 20
 - Self-study: 37

Training: how do you keep up with new developments in clinical microbiology ?

- CM
 - Literature:
 - 42 respondents regularly read journals (TvG, JCM, lettre de l'Infectiologue)
 - 3 respondents don't read any journals
 - Symposia:
 - 16 respondents regularly attend international symposia (ICAAC: 17, ECCMID: 13, ASM: 4)
 - 10 respondents attend national symposia (BVIKM: 4)
 - Other :
 - LOK/GLEM: 42 (3 respondents complained about quality)
 - Post-graduate training: 33
 - Internet: 11, pharmaceutical companies: 4

Training: if you could change the training in CM,
what would be important ?

1. Most important:

1. introduction of clinical training (diagnosis & treatment of ID)
2. antibiotic treatment counselling
3. management of infectious diseases
4. ward rounds with clinicians

Training: if you could change the training in CM, what would be important ?

1. Less important

1. practical, organisational and financial aspects of running a lab (RIZIV-INAMI reimbursement, people management, accounting)
2. resistance mechanisms (detection of resistance, interpretative reading)

2. least important

1. evidence based testing
2. Hospital Hygiene
3. test validation, appraisal
4. culture techniques and identification techniques for bacteria

Training: are there areas in the training for CM that receive too much/not enough attention

- Microbiology

- Too much attention:

- routine microbiology: 16
 - theoretical knowledge: 2

- Not enough attention:

- ID training, clinical training: 10
 - AB therapy counselling: 4
 - Virology: 2
 - resistance mechanisms: 2

Training: is there a need for better & more post-graduate training and how to be organised ?

- CM

- No need: 26 respondents

- Yes, there is a need: 33 respondents

- Organised by universities: (29), scientific societies (20), pharmaceutical companies (5), government (1)

- National level (13), international level(7) regional level (1)

- Free basis (14), obligatory (7)

- There are sufficient possibilities, but quality must improve (3)

Training: Is there a need for a separate course in HH to be able to perform the duties of HH

- CM:
 - Yes: 48
 - No: 4
 - How best organised :
 - Included in CM: 22
 - Separate course: 32

Training: How is training for management of antibiotics best organised ?

- should be included in the current specialisation for CM (40)
- as a separate post-graduate course (10)
- no need for an additional training in addition to the current specialisation for CM (2)

Training: has your training prepared you for all the tasks that you are performing now ?

- ID

- Yes: 11 answers

- Yes, but training opportunities in Belgium not sufficient, training abroad (2)

- No: 11 answers

- ID in general (including AB advice, HIV) : 7
 - Hospital hygiene, Infection control: 3
 - Clinical microbiology part of ID: 2
 - Management: 1

Training: how have you acquired the knowledge to perform tasks that you were not prepared for ?

- ID

- Supplementary training: 11

- Scientific societies: 8

- Boerhave : 3

- Government (AB policy training) : 4

- Others: 4 (abroad – ESCMID, AAP, HH)

- In-house training: 7

- Self-study: 11

Training: how do you keep up with new developments in infectiology ?

- ID
 - Literature:
 - 20 respondents regularly read journals (CID, NEJM)
 - 2 respondents don't read any journals
 - Symposia:
 - 21 respondents regularly attend international (ICAAC: 9, ECCMID: 6) and national symposia (BVIKM: 4)
 - Other :
 - LOK/GLEM: 14 (4 respondents said they were not informative)
 - Post-graduate training: 9
 - Internet: 4

Future of CM

- should CM continue to be a non-recognised discipline within clinical biology (as it is now) ?
 - no : 35
 - yes : 19
 - don't know: 5
- should CM become a sub-specialty (still part of clinical biology) but with a minimal training that needs to be defined
 - yes : 40
 - no : 17
 - don't know: 3

Future of CM

- should CM become a specialty (separate from clinical biology as in most European countries) and imply a specific training that needs to be defined ?
- no: 39
- yes: 17
- Don't know: 1

Future of CM

If a specific training for CM is appropriate, what should receive more emphasis ?

- Use of & counselling on AB: 50
- clinical management of ID :42
formal training HH: 40
training in clinical ID management: 39
- Training in evidence-based medicine: 31
- Better training in clinical microbiology: 8

Future of CM

- should CM have a lab is separate from the other disciplines of clinical biology?
 - yes : 27
 - specific techniques, samples, activity: 9
 - hygiene & safety: 8
 - no : 32
 - common organisation (reception, administration, techniques): 15
 - costs: 5
- CM can share lab infrastructure with other disciplines; the essential aspect of CM lies more in the medical expertise
 - yes : 46
 - no : 13

Future of ID

- Should ID exist as a separate discipline
 - Yes: 20/22
 - Yes (larger hospitals): 1/22
 - No: 1/22
- ID as discipline within IM?
 - Yes: 18/22
 - Remark: financially easier
 - No: 4/22
- ID as separate specialty?
 - Yes: 11/22
 - Part-Time: 8/11, Full-Time: 3/11
 - No: 11/22
 - Part-Time: 7/11, Full-Time: 4/11

Future ID

- Should every Internal Medicine-specialist (or pneumologist..) be able to perform ID-tasks that you are currently performing?
 - No: 16/21
 - Yes: 3/21
 - Yes, if curriculum IM changes: 2/21
- Is better training in ID within IM sufficient?
 - No: 14/20
 - Yes: 5/20
 - Don't know: 1/20

Future of ID

- Which areas should receive more emphasis in a future ID training
 - Clinical management of ID
 - Yes: 20/21
 - No: 1/21
 - Introduction in CM and HH
 - Yes: 20/21
 - Priority (2)
 - an introduction (3-6 months) to get to know the workflow in a lab (4)
 - No: 1/21

Future of ID

- Which areas should receive more emphasis in a future ID training
 - Counselling on use of antibiotics
 - Yes: 21/21
 - No: 0/21
 - Evidence based medicine
 - Yes: 16/21
 - No: 3/21
 - Don't know: 2/21

Future of ID

- Is there a need for a separate post-graduate course for HH?
 - No: 11/22
 - Yes: 11/22
- Is there a need for a separate post-graduate course for AB management?
 - No: 20/22
 - Yes: 2/22

Work division between ID, CM and HH

	CM	ID
Individual patient counselling	ID: 17/35 (daily contact CM) Equal : 15 CM: 3	ID: 9/15 (daily contact CM) Equal : 4 ID = HH > CM: 2/15
Hospital AB formulary	Equal: 31/37 CM: 4 ID:1, HH:1	Equal: 13/15 ID: 2
Nosocomial infections:	CM and HH equal:27 HH:8 CM:1; ID:1	