

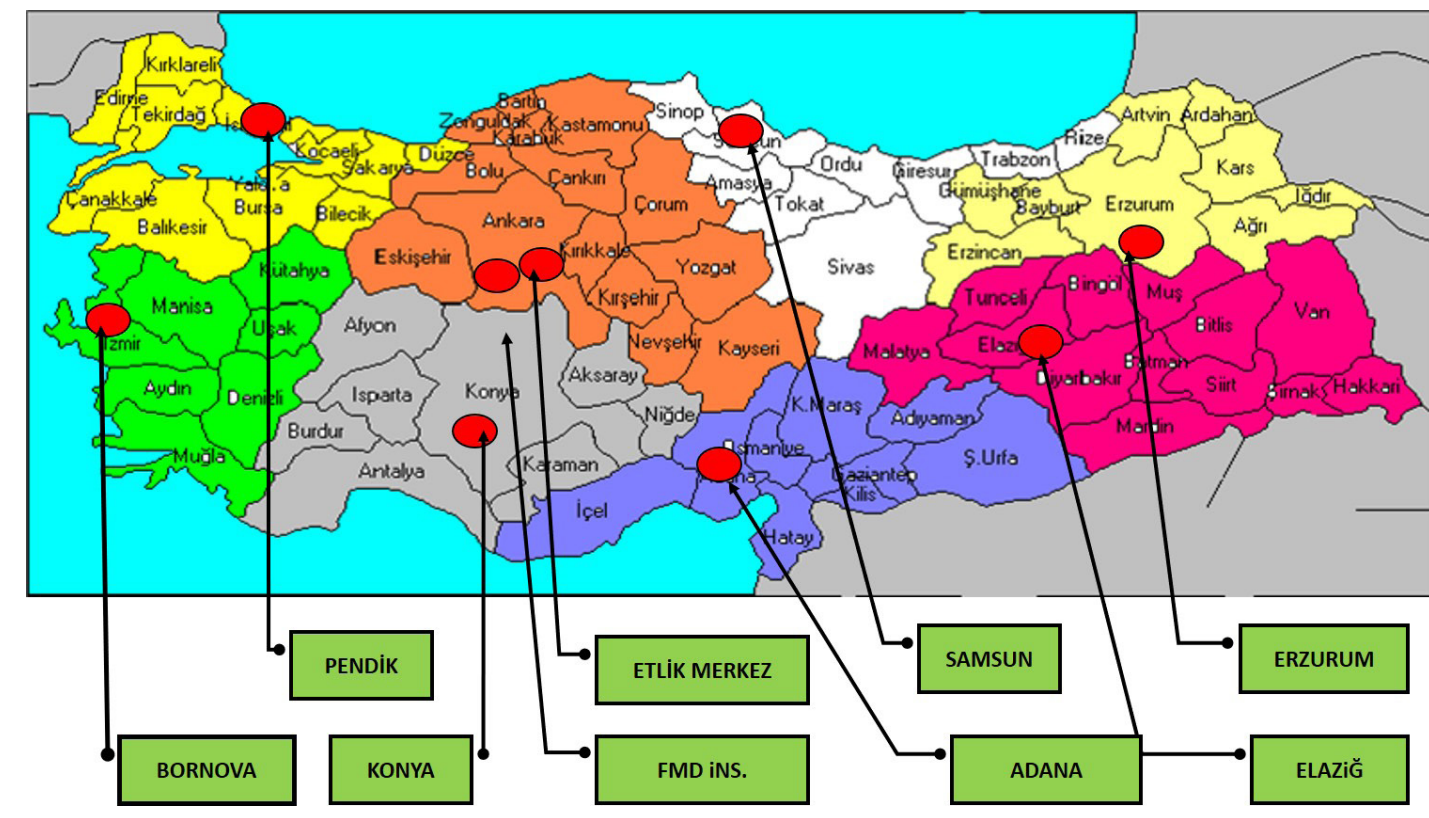


# An Introduction and the Importance of Biosecurity to the Security and Support Personnel at Pendik Veterinary Control Institute (VCI)



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## Veterinary Control Institutes and Regions of Responsibility

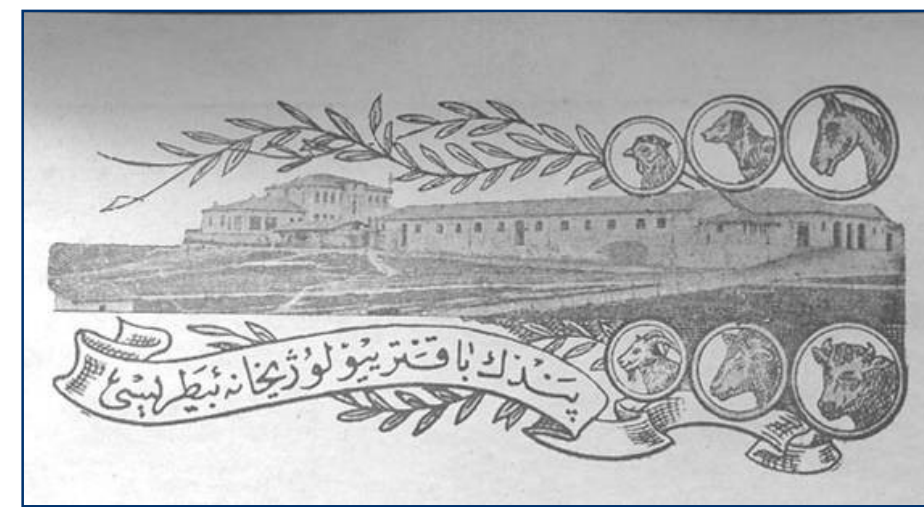


## Regions



## History

- Founded in 1894
- Named Bakteriyojijane-i Osmani by Sultan Abdulhamid II in Sultanahmet.
- Dr. Maurice Nicolle was assigned the first Director of the institute.
- Bakteriyojijane-i Baytari under the direction of Dr. M. Adil SEHZADEBASİ and moved to its current location in 1914.
- Production of Rinderpest serum began in 1901. 44 additional biological products in production or have been produced.



## Background

- Diagnostic Labs (Animal Diseases)
  - 21 laboratories and 4 support service units
  - Over 300 diagnoses and control analyses
  - 68 accredited analysis by TURKAK
- Production (Vaccine, Antisera, Antigen, Media)
- Scientific Research
- Import/Export Control
- Audits
- National Commission Certification
- Education and Publication



## Objectives

- Develop and distribute pre and post questionnaires
- Develop threat assessment exercise for the security guards and support staff regarding a biosecurity incident.
- Provide training to support staff (co-workers) and security guards and fill in the gaps in knowledge of biosecurity found in the awareness questionnaire and discuss the threat assessment exercise.
- Analyze the data from the questionnaires and responses from the threat assessment exercise to measure the results.

## Methodology and Resources

1. Seek Approval
2. Establish Biorisk Commission
3. Select Participants
4. Develop Questionnaires and Threat Assessment Exercise
5. Discuss Exercise with Participants and Distribute Questionnaire
6. Analyze the Questionnaire
7. Administer Training
8. Deliver Training and Threat Assessment Exercise
9. Distribute Same Questionnaire Post-training
10. Present the Data

## Methodology and Resources (continued)

### Step 1: Seek Approval

- Information Meeting with Director of Institute
- Approval by Director of Institute
- Information Provided to the General Directorate
- Evaluation of Project by Top Management
- Approval by Director of the General Directorate



### Step 2: Establish Biorisk Commission

- Need for a BRM commission was discussed with the Director. A meeting was held between the Director and the heads of each lab.
- The commission members were selected by the 21 Lab Heads and the 4 Support Unit Heads.
- The leader of commission is institute Director.

### Step 3: Select Participants

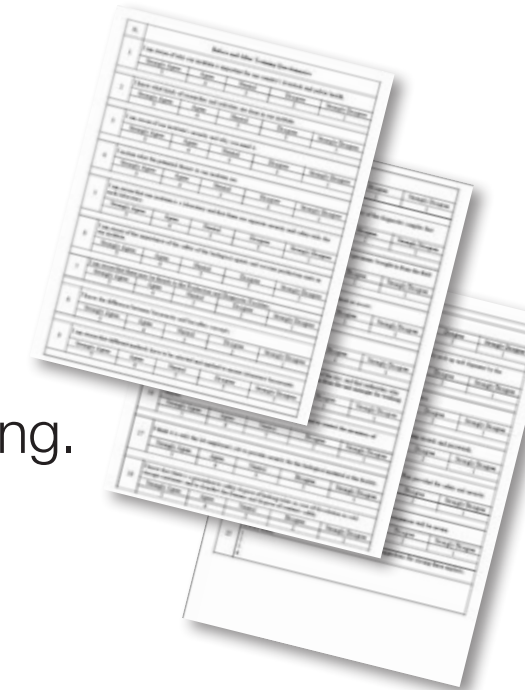
- Organized meeting with the Head of each Lab and the Institute Director to determine 20 participants from the security and support staff.
  - Priority was given to the support staff working in the labs with high risk pathogens.
  - The director and the lab heads required that all security and support staff receive the training.
    - Increased the list to 40.

- |                               |                                 |
|-------------------------------|---------------------------------|
| 1. Poultry Diseases - 1       | 8. Security Department - 10     |
| 2. Vaccine Departments - 8    | 9. Bacteriology - 2             |
| 3. Researching Animals - 1    | 10. Pathology - 2               |
| 4. Sample Acceptance Unit - 2 | 11. Parasitology - 1            |
| 5. Medicine Control Unit - 2  | 12. Virology - 2                |
| 6. Toxicology - 1             | 13. Residue Monitoring Unit - 4 |
| 7. Media Preparation Unit - 2 | 14. Doping Control Unit - 2     |

SIRA NO	ADI SOYADI	SIRA NO	ADI SOYADI
1	Çiğdem KÖKÇA	21	Fuat GÜRBÜZ
2	Söğüt KARAYILMAZ	22	Nevriye ERDÜK
3	Abdullah KILINÇ	23	Ak Burak ÖZMEZ
4	Beyhan KARABİR	24	Çağrı DEMİRBAŞ
5	Osman YAVUZ	25	Mehmet ANBARCI
6	Çiğdem ÇELİK	26	Selime ALAY
7	Nurhan ÖZMEZ	27	Reşat KÖSTEK
8	Zeynep ÜNLER	28	Ahmet SULTANBAĞCI
9	Özlem BİR	29	Elif KÖKÇİBAŞI
10	Abdullah EGE	30	Rahim ÖZGÜR
11	Edem ÖZTÜRK	31	Nuray KARAL
12	Nurullah ARAC	32	Abdullah KÖKÇA
13	Burhan AĞI	33	Mehmet YATKANLI
14	Zahide ULUSU	34	Ali YILDIZ
15	Ahmet SANCAR	35	Harun TURKER
16	Ömer ERGİL	36	Sonnet DUMER
17	Çiğdem ÇELİK	37	Erdem FARIKÇI
18	İsmet İZZET	38	Mehmet CAĞLAR
19	Mehmet YILMAZ	39	Özlem TAMAN
20	Zahide YILMAZ	40	Mehmet CAĞLAR

### Step 4: Develop Questionnaires and Threat Assessment Exercise

- 25 questions were prepared:
  - Determine the level of awareness on biosecurity
  - Prepare the subjects for the training
  - Identify gaps in biosecurity knowledge
- 24 multiple choice and 1 for suggestions.
- The same questionnaire was distributed to the participants at the end of the training.
- Likert scale was used:
  - 1: "Strongly disagree"
  - 5: "Strongly agree"



### Step 5: Discuss Exercise with Participants and Distribute Questionnaire

- Provided BSL-3 Laboratory tour
- Discussed the scenario of a fire in laboratory
- Pre-questionnaire distributed



### Step 6: Analyze the Questionnaire

Topics:

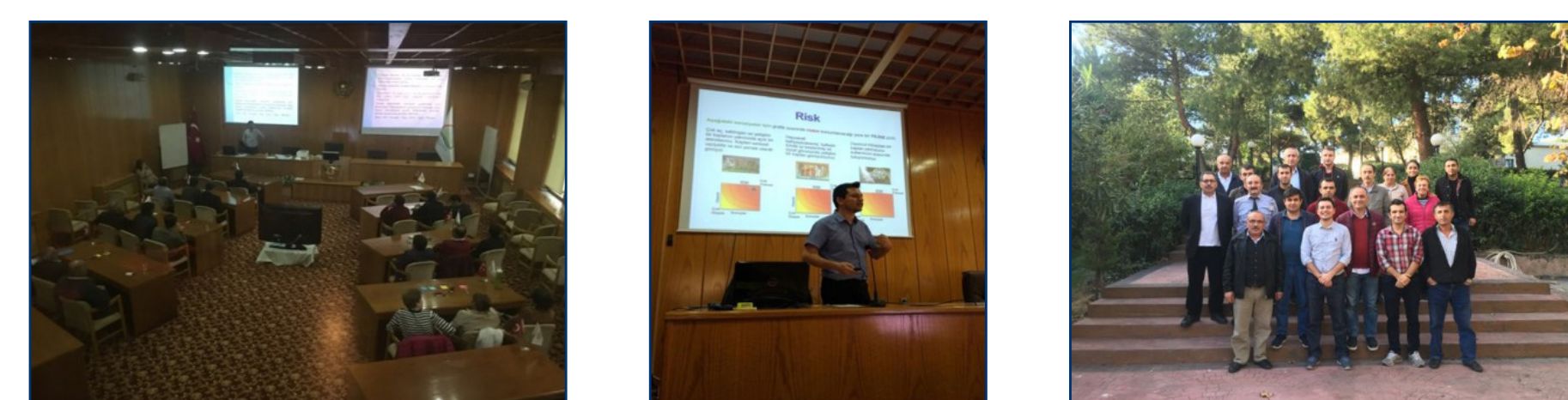
- Awareness questions (5)
- General Information (7)
- Biorisk Management
  - Biosafety (4)
  - Biosecurity (8)

- 3. I am aware of our institute's security and why you need it.
- 19. I know what waste management and biohazardous waste is.
- 18. I know that there is a procedure to safely dispose of leaking tubes in case of melting in the cold room and to disinfect the freezers and dispose of the tubes safely.
- 17. I think it's not only the lab employee's job to provide security for the biological material at the facility.

### Step 7: Administer Training

Key Topics of Training:

- Biosecurity Threats
- Challenges
- Mitigation



## Methodology and Resources (continued)

### Step 8: Deliver Training and Threat Assessment Exercise

- Provided scenario again.
- Discussed previous responses and missing points
- Participants took part in the threat assessment exercise and filled in the gaps.



## Results

Before Average: 4.02 / After Average: 4.75

- Q8: I know the difference between biosecurity and biosafety concepts.
- Q9: I am aware that different methods have to be selected and applied to ensure laboratory biosecurity.
- Q17: I think it's not only the lab employee's job to provide security for the biological material at the facility.



X Axis: Question #, Y Axis: Likert scale 1-5  
Blue = Before Training, Red = After Training

- Biorisk Committee was established with defined roles and responsibilities.
- Data was received regarding prior perceived knowledge of Biosecurity in the workplace.
- Biosecurity training was performed.
- Threat assessment exercise was provided.
- Data was analyzed.

General Evaluation of the Instructor and Feedback from Participants

- Average instructor evaluation score: 4.8 out of 5
- Feedback was positive.
  - Very useful
  - Satisfied with the training and what learned



## Lessons Learned

- Security guards and support staff are more invested in their job when they better understand what they are protecting and why.
- Many were unfamiliar with what work is performed in the lab and had never toured a BSL3 lab before.
- Understanding the layout, content, hazards, symbols, terminology is critical for non-lab staff to prepare them for a laboratory emergency situation. The tour and development of the scenario were very helpful in increasing their awareness of biosecurity.

## Moving Forward

- Orbay- Provide Biosecurity training and exercise to veterinarians and technical personnel.
- 5 day BRM Training for all institute personnel.
  - Annual Refresher Training.
- New Employee BRM Training.

## Thanks to

- Sandia National Laboratories
- Biological Threat Reduction Program, US Defense Threat Reduction Agency
- General Director of Food and Control of MoFAL
- Director of Pendik Veterinary Control Institute
- Heather Blair, Colorado State University
- Eric Cook, William Pinard, Anita O'Brien and all other Sandia National Laboratories staff

## References

- Global Biorisk Management Curriculum (GBRMC)'s training documents, European Food Safety Authority (EFSA) website and World Health Organization (WHO) website