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The Results of 2023 On-site Auditing of Hemodialysis Centers (Chapter 2, 4 and 5)

Shu, Kai-Hsiang
Far Eastern Memorial Hospital, New Taipei City, Taiwan



亞東紀念醫院
FAR EASTERN MEMORIAL HOSPITAL



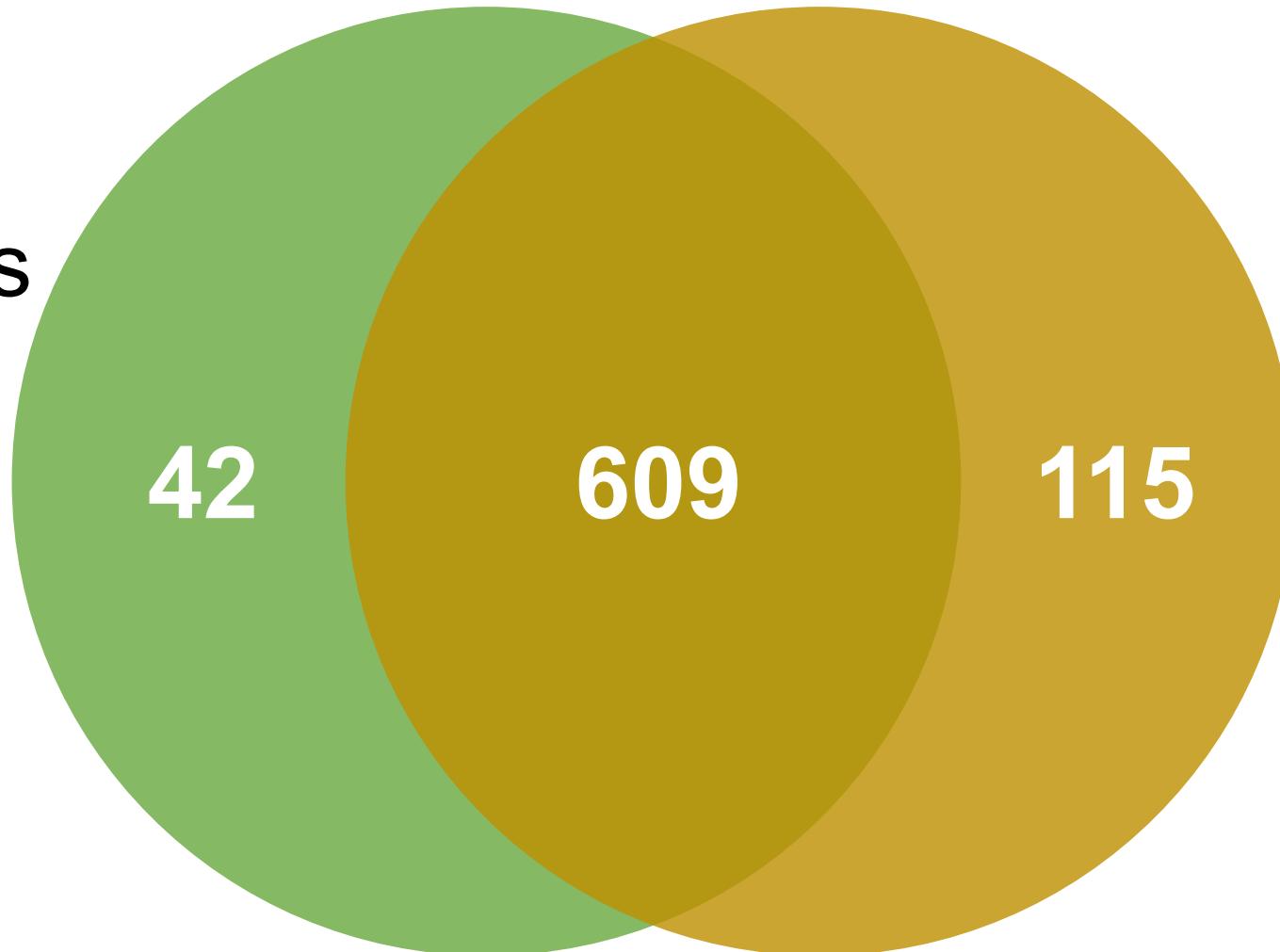
台灣腎臟醫學會
Taiwan Society of Nephrology

Outline

- Numbers of dialysis units
- Results
- Conclusions

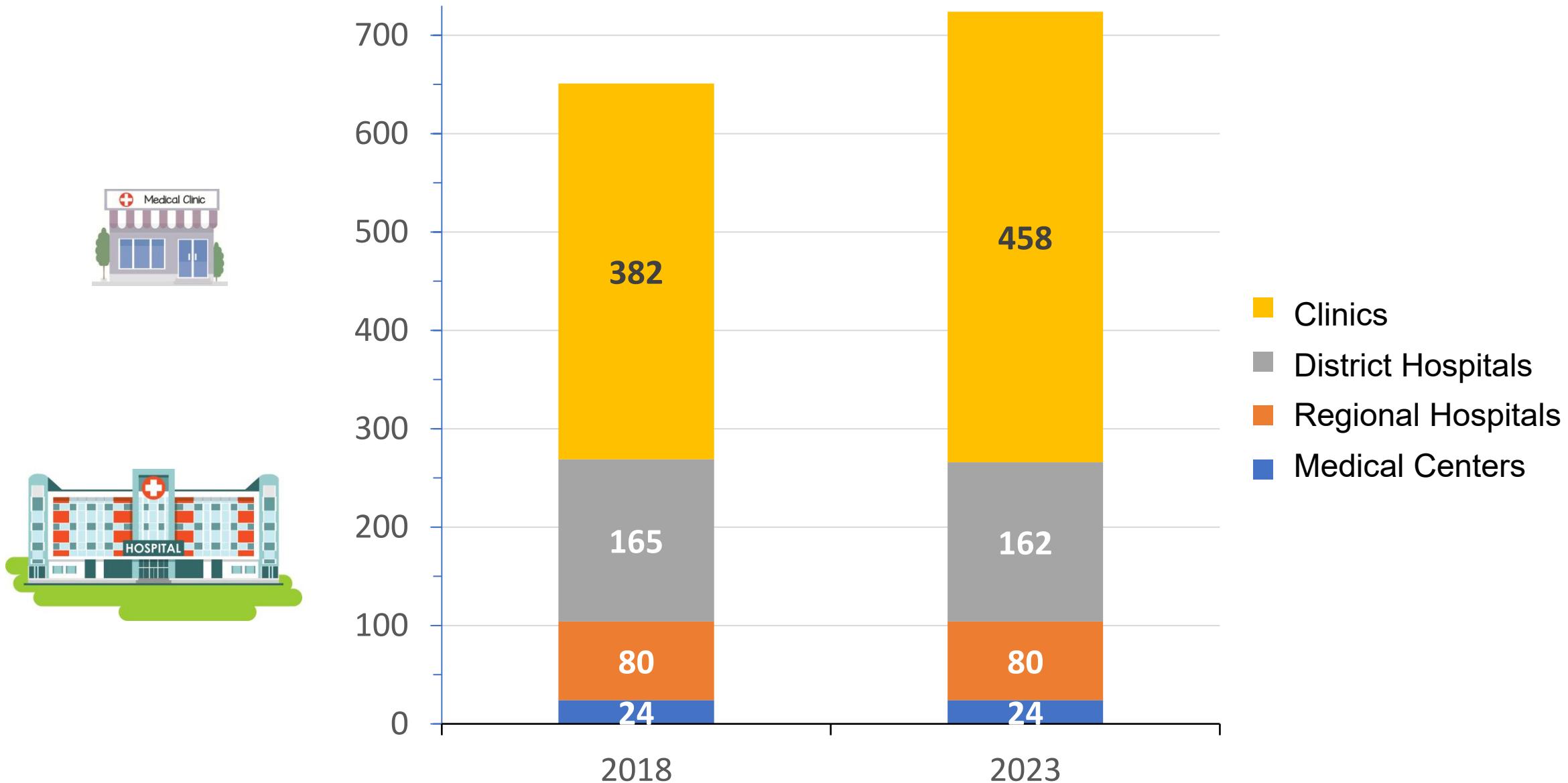
Numbers of Dialysis Units

2018 audit
651 facilities



2023 audit
724 facilities

Distribution of Dialysis Units: Facility Levels



Contents



Excellent
Passed
Failed

Healthcare Quality

Medical records

Dialysis adequacy

Anemia

CKD-MBD

CV complications

Personnel Quality Improvement

Continuing medical education

Human power

Administration and Management Appropriateness

Dialysis machine maintenance

RO system disinfection and bacterial culture

Emergency generator

Disposables management

Medical records storage

Contingency planning

2.1 Comprehensive Dialysis Medical Records

- 2.1.1 Past medical history
- 2.1.2 Drug allergy, Hepatitis B and C, blood type
- 2.1.3 Creation records for vascular access
- 2.1.4 Dialysis orders
- 2.1.5 Lab data
- 2.1.6 Records for sessions
- 2.1.7 Completeness of records

2.2 Healthcare quality

2.2.1 Dialysis adequacy

2.2.2 Anemia

2.2.3 CKD-MBD

2.2.4 Cardiovascular complications

2.2.1 Dialysis adequacy

2.2.1.1 Urea Reduction Ratio



2.2.1.2 Kt/V



2.2.1.3 Albumin



2.2.2 Anemia

2.2.2.1 Hemoglobin



2.2.2.2 Ferritin



2.2.2.3 Erythropoiesis stimulating agent



2.2.3 CKD-MBD

2.2.3.1 Calcium-phosphate product

2.2.3.2 Intact PTH

2.2.4 Cardiovascular complications

2.2.4.1 Cardio-thoracic ratio



2.2.4.2 Blood pressure management



4.1 Personnel quality improvement: doctors

4.1.1 Attending conferences 

4.1.2 Hosting in-house case conference 

4.2 Adequacy of nephrologists 

5.1 Devices management (ANSI/AAMI 13959:2014)

5.1.1 Machine repairment and disinfection

5.1.2 RO system maintenance and disinfection

5.1.3 Bacterial culture

5.1.4 Emergency generator

5.1.5 Wastewater and disposable managements

5.1.1 Machine repairment and disinfection

- 5.1.1.1 Maintenance protocols 
- 5.1.1.2 Contracted maintenance personnel 
- 5.1.1.3 Dialysis machine maintenance and repair 
- 5.1.1.4 Defibrillator and sphygmomanometer maintenance 
- 5.1.1.5 User's manuals 
- 5.1.1.6 Disinfection 

5.1.2 RO system maintenance & disinfection

5.1.2.1 Maintenance and disposable replacement records 

5.1.2.2 System maintenance and disinfection protocols 

5.1.2.3 Maintenance and disinfection records 

5.1.2.4 Daily maintenance: conductivity and softener regenerating salt 

5.1.2.5 Residual chlorine, hardness, and heavy metals 

Culture, generator, and waste management

5.1.3.1 Bacterial culture 

5.1.4.1 Emergency generator 

5.1.4.2 Testing records for generator 

5.1.5.1 Wastewater management 

5.1.5.2 Used disposable management, including sharps waster 

5.1.5.3 Waste sorting 

*Monthly for RO water, seasonally for dialysis machine, annual for endotoxin

Medical records storage

5.2.1.1 Appropriate space with designed manager



5.2.2.1 On-site examination of medical records



5.2.2.2 Cybersecurity



Contingency planning

5.3.1.1 Preparation of emergency response plan with live drills 

5.3.1.2 Continuous improvement following unexpected events 

5.3.1.3 Fire evacuation plan with live drills 

Conclusion

- Most if not all dialysis units in Taiwan met the domestic standard-of-care
- Spaces for further improvement
 - Iron and anemia
 - Fluid management and heart size
 - CKD-MBD
- Practice makes perfect: do practice drills for **contingency**

Your Attention is Appreciated