



كليفلاند كلينك أبوظبي
Cleveland Clinic Abu Dhabi

Brought to you by Mubadala

Hospital Collaboration

4 April 2017



In 2002, Mubadala (the Arabic word for ‘exchange’) was established by the Government of Abu Dhabi, as a principal agent in the diversification of Abu Dhabi’s economy.

Mubadala has developed a network of world-class healthcare providers to meet the specific health needs of the expanding Abu Dhabi population by partnering with renowned international medical institutions such as Imperial College London and Cleveland Clinic Ohio.

Cleveland Clinic Abu Dhabi (CCAD) is a physician-led medical facility with 364 beds and state-of-the-art amenities.

Our mission is to provide compassionate, patient-centered care of the **highest quality.**

Patient Safety is our priority



We see the introduction of **GS1**, not as a challenge but as an **opportunity to extend quality of care** to our patients by being more **Efficient, Economical and Safe**, in the management of our supply chain systems.

Cleveland Clinic Abu Dhabi will be the first hospital in the Middle East to introduce GS1 for the "end to end" tracking of over 13,000 active SKU's including implants.

As part of the Mubadala Healthcare assets, Cleveland Clinic Abu Dhabi will leverage the GS1 standards across the network of six healthcare providers owned by Mubadala.



Healthcare

United Arab Emirates –

- Tawam Molecular Imaging Centre
- National Reference Laboratory
- Imperial College London Diabetes Centre (ICLDC)
- Cleveland Clinic Abu Dhabi
- Capital Health Screening Centre
- Healthpoint

Formation of Healthcare Supply Chain - UAE



Inauguration of Healthcare Supply Chain – UAE 15 December 2016



MISSION

To advance Supply Chain excellence among the professionals in hospitals and healthcare related organizations in the UAE

VISION

To be a platform for the active participation of Healthcare Supply Chain professionals in the UAE

Collaboration with other hospitals



Creating a platform to share experiences on the implementation of GS1 standards at Cleveland Clinic Abu Dhabi with other hospitals in the UAE

Joint Commission Standard GLD.7.1

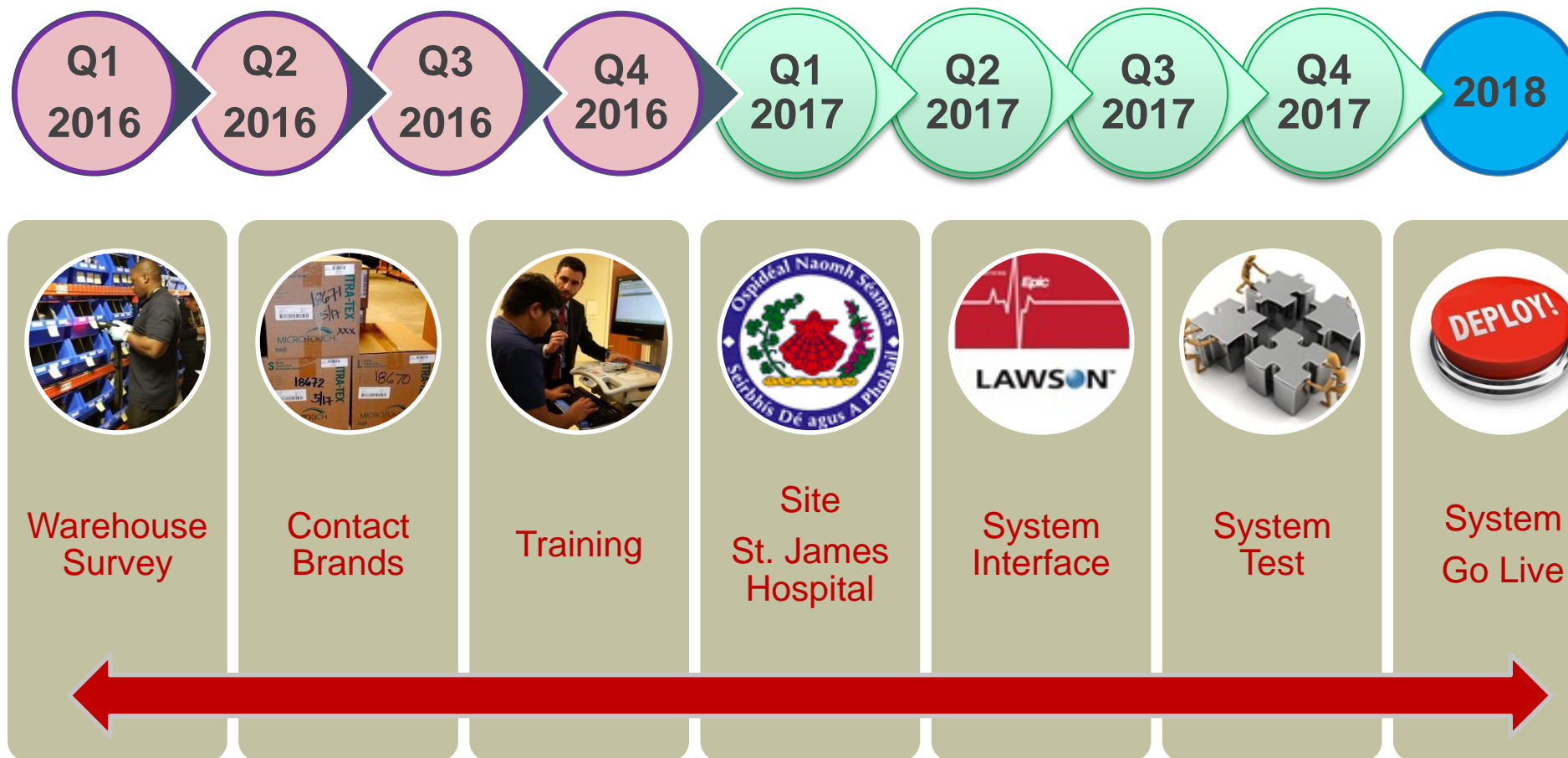


“Hospital leadership seeks and uses data and information on the safety of the supply chain for drugs, medical technology and supplies to protect patients and staff from contaminated, fake and diverted products”.

Measurable Elements of GLD.7.1

1. Identifies the supply chain of critical supplies and medical technology
2. Evaluates the integrity of each supplier in that chain
3. Makes resource decisions based on their understanding of the risks in the supply chain
4. Tracks critical supplies to prevent diversion or substitution

CCAD – GS1 Project Milestones



Recipe for Success

Internal Stakeholders

- ✓ Have clear objectives and understanding of GS1 standards
- ✓ Support from stakeholders
- ✓ Identify champions

External Stakeholders

- Health Authority support
- Manufacturers and distributors support



Health Authority Support

“In January 2017, Dubai Health Authority (DHA) adopted the GS1 standards as part of its Medicine Barcoding project.

DHA requires all pharmaceutical products to use GS1 data matrix barcode on all secondary packaging.”



Thank
you





The Global Language of Business

Hospital Collaboration

An Australian and New Zealand perspective

Megan Main, Chief Executive, New Zealand Health Partnerships
Tuesday 4 April 2017

Down Under...



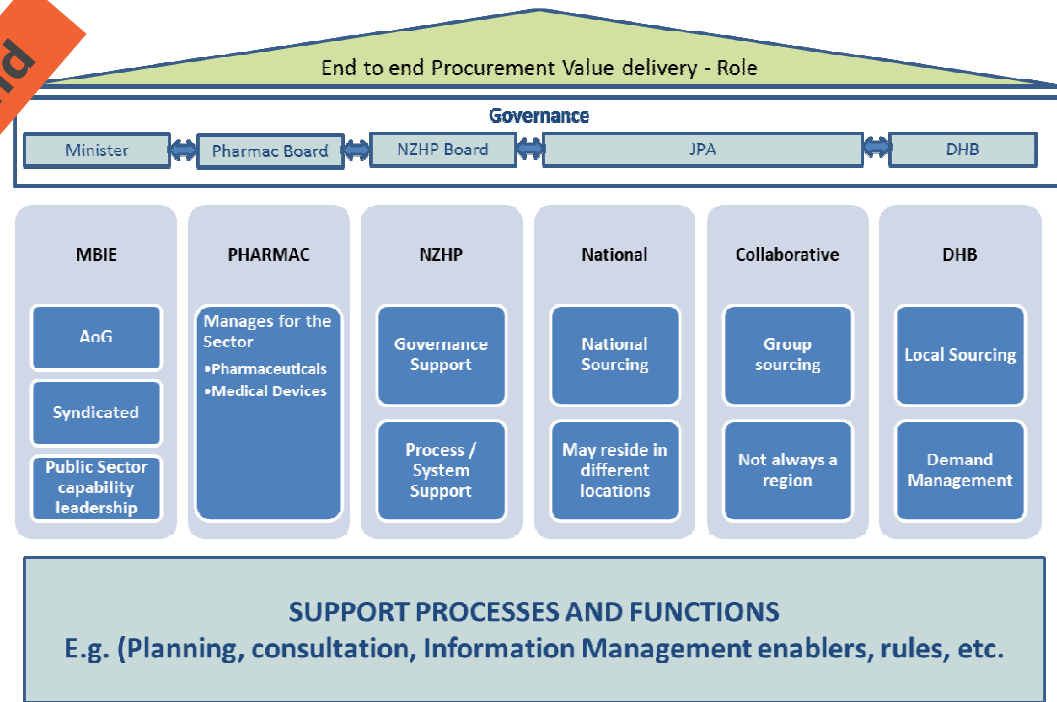
Australia

New Zealand

Collaboration can be complex!



New Zealand



Collaboration versus Local Needs



**Serves a
population of
541,000 people**



**Serves a
population of
43,000 people**

Strategic Principles for Collaboration



Demonstrate Value

- All procurement activity must be of demonstrable value, taking into account the entire value chain.

Demonstrate Commitment

- DHBs are committed to Collective Procurement and will work cooperatively with all participants to achieve defined strategic goals.

Drive Standardisation

- DHBs actively commit to a set of nationally led procurement categories.

Ensure Patient Focus

- Procurement is undertaken with the needs of patients in mind to achieve the desired balance of clinical and financial outcomes.

Achieve Balance

- Long term goals are not compromised by a focus on the short term.

Embed Enablers

- Collective procurement is built on core enablers, including systems and information.

Streamline Activity

- Operational waste, including unnecessary duplication, is minimised.

Ensure Alignment

- Procurement aligns with the NZ Health Sector Strategic outcomes and the Government Rules of Sourcing.



Data Data Data



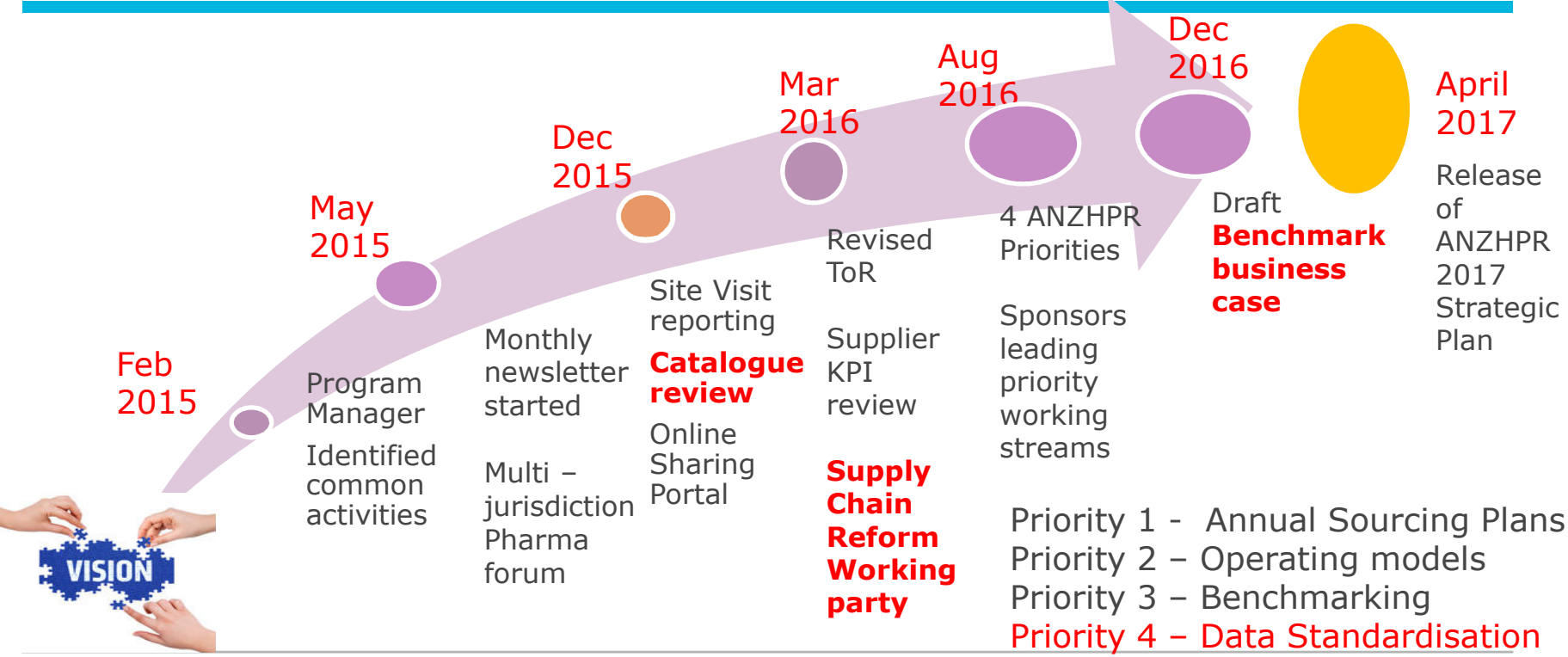
Case Study: Collaboration across borders

AUSTRALIAN NEW ZEALAND HEALTH PROCUREMENT ROUND TABLE
(ANZHPR)

The Down Under experience



The ANZHPR journey



The ANZHPR journey



Benefits

- One voice to supplier community
- Alignment with GS1 Australia for National Product Catalogue (Global Data Synchronisation Network, GDSN)
- Sharing of learnings, building relationships

Challenges

- Nine jurisdictions each with its own political process, legislation, policies, priorities
- Activities seen as 'extra work' early on in journey
- Slow progress with many participants involved

Lessons

- Do the up front analysis to identify, scope and agree 'Top Three' priorities – what, when, who
- Call out broken promises; they affect everybody
- Common data 'language' is essential for collaboration



GS1 standards supporting collaboration



Australia

- National Product Catalogue mandates GS1 GDSN
- Victorian Product Catalogue built on GSDN
- E-Commerce and EDI
- Recallnet

New Zealand

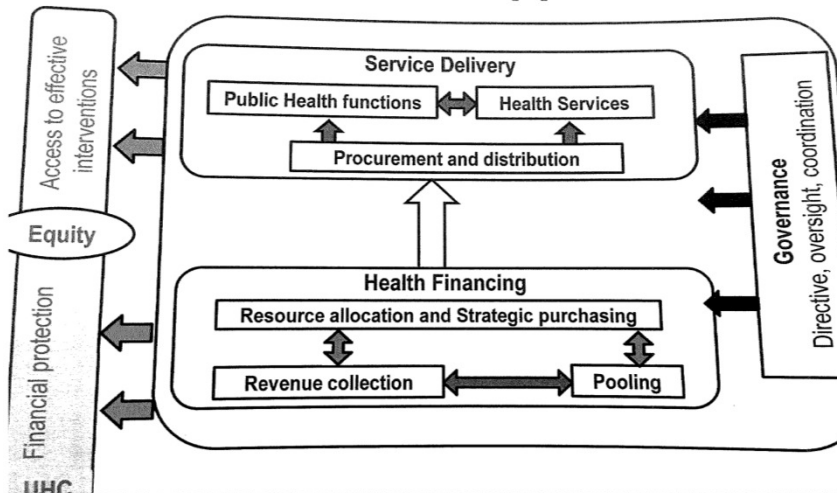
- A lead country: GS1 and SNOMED project
- Public consultation completed on national Medical Device terminology and identification standard
- Programme underway to move to national Finance and Procurement System with inbuilt single catalogue

Australia and New Zealand are at different stages and grapple with different collaboration challenges

BUT there are significant opportunities for both, underpinned by GS1 standards



Collaboration on a big (global) scale!



Universal Health Coverage (UHC)

- A **whole-of-system** approach
- About the **interconnectedness** of all of the components
- Includes **Procurement and Distribution** at the headline level
- **Data Standards** are essential for achievement!



World Health Organization



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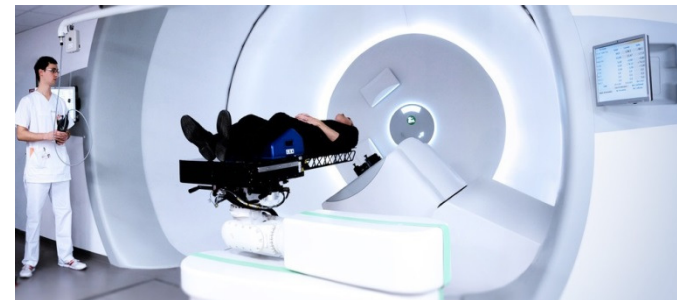
Hospital Collaboration in Germany

GS1 Healthcare Conference, Berlin, April 4, 2017

Wilfried E. B. Winzer, Chief Financial Officer, University Hospital Carl Gustav Carus Dresden

The University Hospital Carl Gustav Carus Dresden

- Institution under public law („Anstalt öffentlichen Rechts“)
- Responsibilities in health care, research and teaching
- 25 departments and polyclinics (incl. 4 dental departments) and 3 diagnostic institutes



Core data 2015

1.295 Beds (inpatient)

57.465 inpatient cases

10.484 daycare cases

221.473 outpatient cases (HSA, Ermächtigungen, Notfälle und ambulante OP)

Case Mix – Index: 1,468

Ø length of inpatient stay: 7,73 d (6,93 d KHEntG-Bereich)

Employees: 4.548,88 full-time positions *

439 students at Carus Akademie

72 apprentices

Total earnings: 435,6 Mio. €

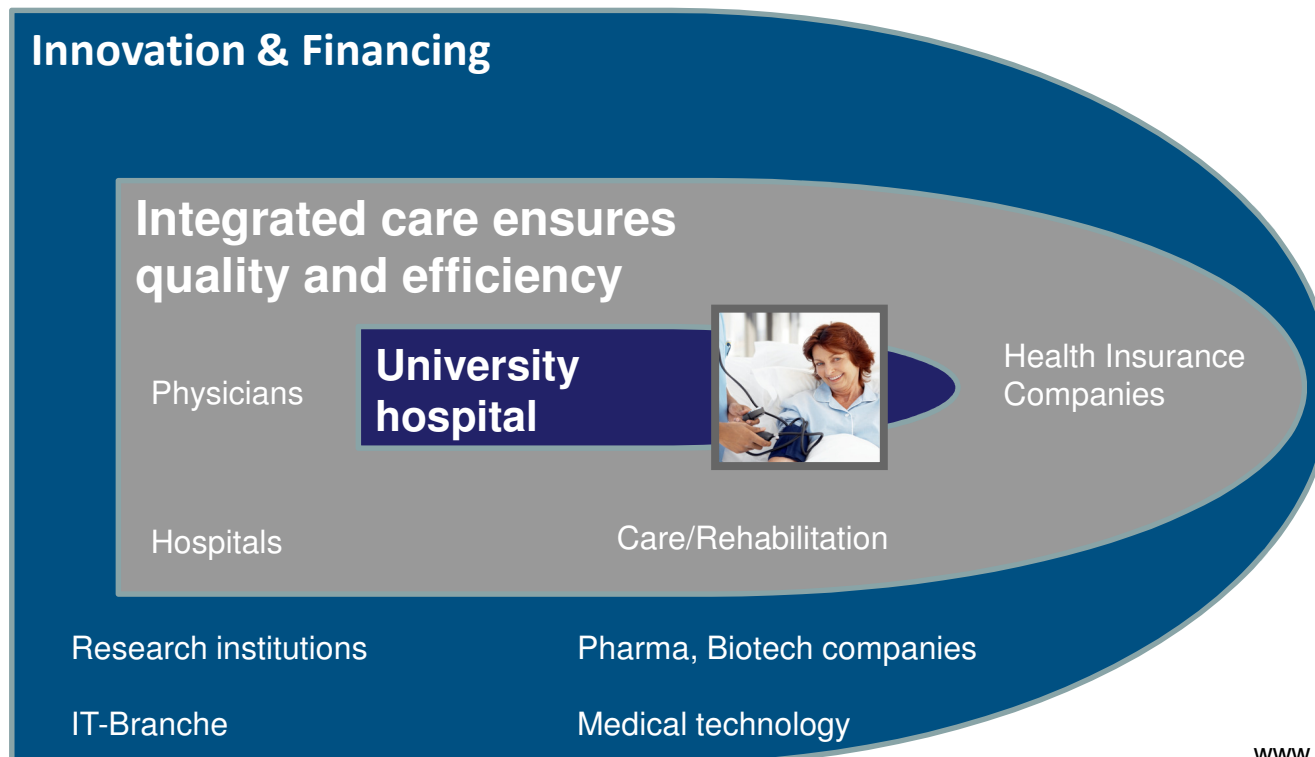




- The University Hospital provides medical care according to the highest international standards of academic medicine and offers the entire range of modern medical services.
- All departments – from ophthalmology to trauma surgery and nuclear medicine – feature highly specialized subdivisions and outpatient services. The University Hospital offers all state-of-the-art diagnostic facilities. There is also a center for odontological, oral and maxillofacial surgery.
- Interdisciplinary cooperation is fostered through the formation of comprehensive medical centers. Examples are the Comprehensive Cancer Center, Vascular Center and Renal- and Bone Marrow Transplant Centers.



University Hospitals are the crystal nucleus in the German Healthcare System driving innovation networks





Ongoing systematic changes require a change of strategy for all actors in the healthcare system

- Demographic change will lead to a decrease of highly trained healthcare workforce and increase of elderly patients with multiple chronic diseases
 - increase of life expectancy
 - migration of the young and mobile and thus lack of skilled workforce→ thus often failure of succession for general practitioners in rural areas
- Attractiveness issues lead to physicians preferably work in town instead of rural areas
- This leads to:
 - Outpatient medical specialists of certain professions simply not available any more
 - Hospitals face increasing difficulty in recruiting specialists of certain professions (pathology, neurosurgery ...)
 - Both results increase in severity with increasing distance to larger towns



Hospitals have to adapt their supply scope as well as their models of cooperation and collaboration

- Systematic changes pose significant threats to independent hospitals
- Immediately noticeable through reduction in revenue when (e.g.) permission for oncologic surgery is revoked due to missing pathologist
- Possible mitigating strategies are:
 - Forming larger conglomerates (Helios, Sana ...)
 - Creating hub-and-spoke structures and centres (regional breast cancer units)
 - Emphasising and strengthening networks and collaborations between formerly independently operating hospitals



Technological advance permits efficient networks over greater distances

- Telemedicine networks are a feasible solution to overcoming physical distance between hospitals without wasting productive time „on the road“
- But: Technical obstacles are still the available bandwidth and acceptance issues
- Well-known working examples (mostly hub-and-stroke networks) are:
 - Radiological and neuroradiological consultation (UKD RadioConsil)
 - Triage and treatment of acute stroke (UKD SOS-Net)
 - Triage and senior expert consultation in emergency services (UK Aachen, TeleNotarzt TEMRAS)
- Other approaches use a case manager and distributed monitoring:
 - Out-patient monitoring of cardiac insufficiency (CCS TeleCoaching)
 - Out-patient followup of stroke patients (CCS TeleStroke)



UKD RadioConsil – 40+ partner hospitals linked to standardised 24/7 consultation service



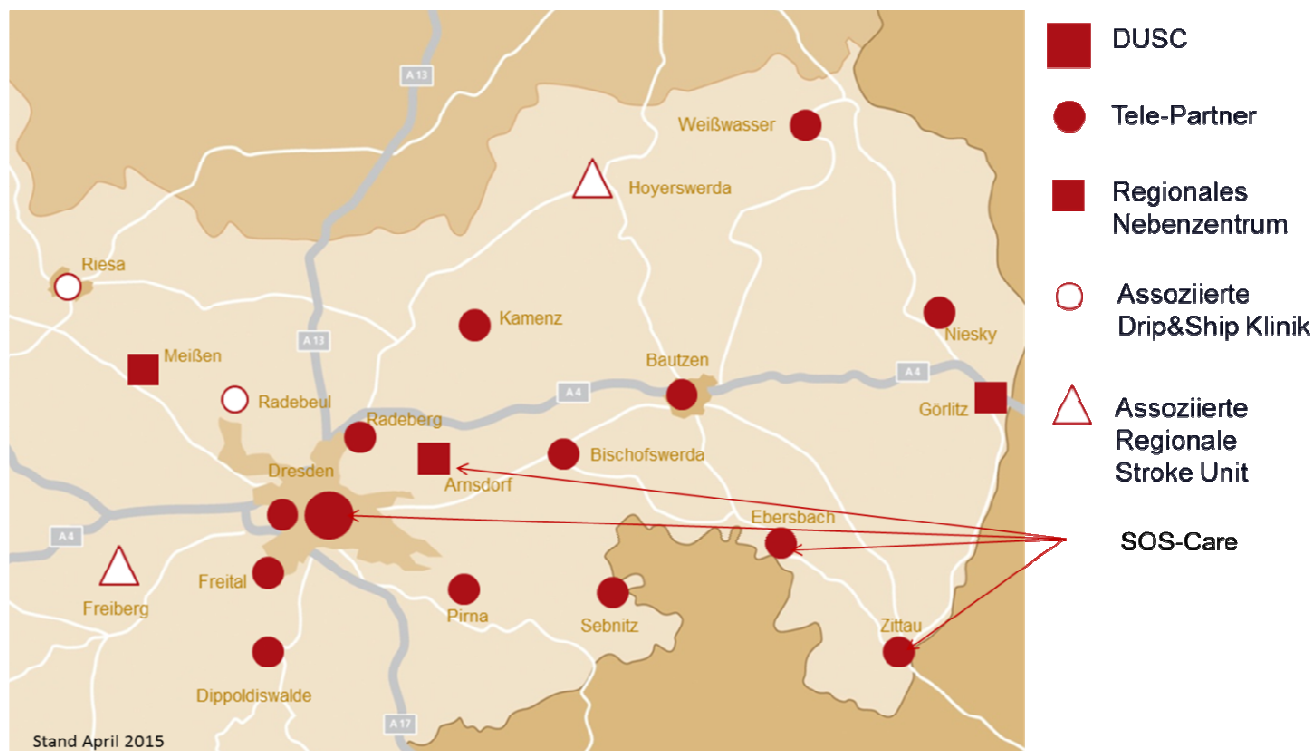
RADIOCONSIL
am Universitätsklinikum Carl Gustav Carus Dresden



**CARUS CONSILIUM
SACHSEN**



UKD SOS-NET – widely available university-level treatment of acute stroke via telemedicine network





Hospital Collaboration in Supply

Using joint data bases: GDSN, 1 WorldSync, data matrix



EK-UNICO –
Overview:
32 university
hospitals
12 members





Pharmacy of University Hospital Dresden supplies regional hospitals

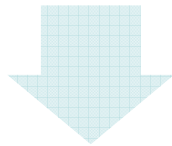


- State of the art GMP manufacturing unit
- Manufacturing of cytostatica and other drugs for the university hospital Dresden and numerous other regional hospitals
- Automated picking machine reduces workload, increases speed of product handling and maximizes safety
- 2 unit dose machines for individual blister packaging of medicine for each patient
- Implementation of the securPharm system protection against the placing on the market of counterfeit medicines

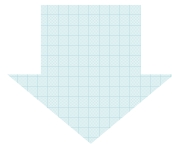


State-of-the-art technology allows unit-dose supply of solid peroralia for patients (1)

Medication input in prescription software by pharmacist or nurse



Validation of medication data in hospital pharmacy Validierung der Medikationsdaten in der Klinik-Apotheke



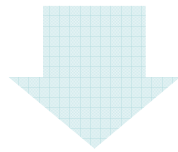
Packing of unit dose bags for a set timeframe of 24 h

Medikation	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Startzeit	Stopzeit	St.	Stapel	Ar.
Cymbalta 60mg Kps.																								16.02.2015	V				
Ibuprofen 600mg Ftbl.																								15.02.2015	V				
Paracetamol 20mg Ftbl.																								16.02.2015	V				
Paracetamol-ratio 500mg Tbl.																								15.02.2015	V				
Tamoxifen 300mg retard Rtbl.																								15.02.2015	V				
Valerian comp. 100mg/25mg Ftbl.																								16.02.2015	V				

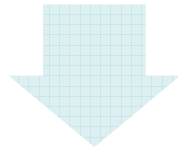


State-of-the-art technology allows unit-dose supply of solid peroralia for patients (2)

Optical control by inspector, if necessary correction and follow-up inspection



Packing of delivery and delivery to ward by courier



Counter check in ward by nurse and delivery to patient

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Networking offers potentials for innovation, transfer of know-how and for improved care

■ Forming regional networks

- geographical proximity of actors

■ Viable value creation structures

- critical mass in all steps of value creation

■ Availability of highly qualified work


- **Access to a broad pool of experience and qualification** which can be subject to fast change of content
- **Availability of related service providers and finances**
- **Sophisticated services** along the value creation chain (Lawyers, investors, consultants)





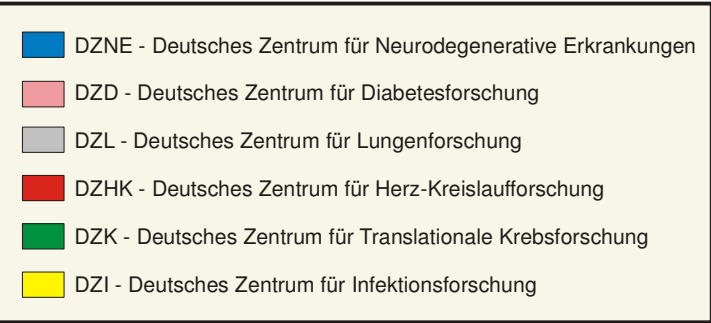
CENTERS AND NETWORKS: HIGHEST LEVEL OF CARE FOR THE REGION

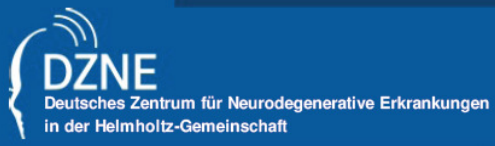


 <p>Dresdner Universitäts SchlaganfallCentrum</p>	 <p>Universitäts AllergieCentrum</p>	 <p>Universitäts GefäßCentrum</p>	 <p>Universitäts SchmerzCentrum</p>	 <p>Zentrum für Translationale Knochen-, Gelenk- und Weichgewebeforschung</p>	 <p>UniversitätsCentrum Evidenzbasierte Gesundheitsversorgung</p>	 <p>Universitäts KrebsCentrum</p>
 <p>Diagnostisch Internistisch Neurologisches Zentrum am Universitätsklinikum Carl Gustav Carus</p>	 <p>UniversitätsCentrum für Seltene Erkrankungen</p>	 <p>Universitäts PalliativCentrum</p>	 <p>Universitäts Mukoviszidose Centrum</p>	 <p>Universitäts PlastischÄsthetisches Centrum</p>		
 <p>Universitäts- Physiotherapie- Zentrum am Universitätsklinikum Carl Gustav Carus</p>	 <p>Gynäkologisches Krebszentrum am Universitäts KrebsCentrum</p>	 <p>Regionales Brustzentrum am Universitäts KrebsCentrum</p>	 <p>Hauttumorzentrum am Universitäts KrebsCentrum</p>	 <p>Prostatakarzinomzentrum am Universitäts KrebsCentrum</p>		
 <p>Universitäts Kinder Frauzentrum am Universitätsklinikum Carl Gustav Carus</p>						



Locations of German Centers for Health Research („Deutsche Zentren für Gesundheitsforschung“)





Deutsches
Zentrum für
Translationale
Krebsforschung

- Cooperation of academic and non-academic research institutions within networking structures
- Joint research in the areas of each of the major public health topics: dementia, diabetes, lung diseases, heart and circulatory diseases, cancer and infection
- Massive grants by the German Ministry of Research via the Helmholtz-system with a focus on long term sponsoring of research structures
- Selection of the participating institutions of the centers through an transparent competition overseen by international review boards
- Dresden successful in three out of six categories:
 - Germany-wide 3rd rank together with the two university hospitals of Munich
 - 1st place in Eastern Germany (in front of Charité Berlin)



Telemedicine and regional tumorboards at the University Cancer Center (UCC) Dresden

Regional Breast Cancer Center since 2004

Four Hospitals:

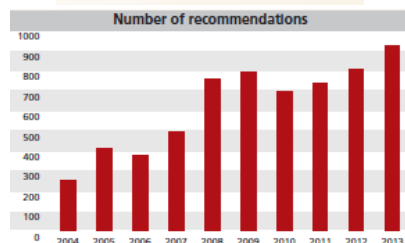
University Cancer Center
Diakonissenkhs. Dresden
St. Joseph Stift Dresden
Elblandklinikum Radebeul

Five private oncologists/
gynecologists

Radiooncology at UCC and
Private Radiooncologist

UCC – Pathology
UCC – Radiologie

Weekly physical boards at UCC



Kreis Krankenhaus Freiberg
gemeinnützige GmbH
Akademisches Lehrkrankenhaus
an der Technischen Universität Dresden

University town, local center,
42.000 habitants Hospital with 350 beds

Tele-Tumorboard since 2010

2010 – 2013:
129 tumor boards
332 recommendations
intention: 167 curative, 118 palliative, 47 open
further treatment: 214 local (64%), 267 patients

Non-local treatment:
Reasons for further treatment at UCC

Reason	Color
resection	Blue
radiochemo	Red
radiation	Green
radiochemo, resection	Purple
TB UCC	Teal
TACE/SIRT	Orange
PET-CT	Light Blue
chemo	Pink

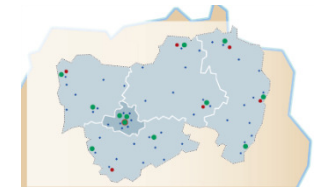




Perinatal Region Eastern Saxony („ Perinatalregion Ostsachsen“)

Quality assured care for sick neonates

The healthy development of children needs provident social and health policy activities.



Caring for neonates is a special challenge as ...

- Immediately postnatal every fifth baby requires some kind of medical care.
- Diseases in the neonatal period are associated with a 7-fold increase of health expenditures within the first five years of life.
- A number of long-term health issues originate in a disturbed neonatal period.

StationäresNETZ	Coordination across centers
VorsorgeNETZ	Sustainability through cross-sectoral care
FamilieNETZ	Strengthening of parental competencies



Bundesministerium
für Bildung
und Forschung



STAATSMINISTERIUM
FÜR SOZIALES UND
VERBRAUCHERSCHUTZ



Die Gesundheitskasse
für Sachsen und Thüringen.





Quality assurance association of Elblandkliniken, university hospital Dresden und AOK

Main focus: Ovarian cancer

Methods: Joint tumorboards make therapy decisions

Structured follow-up care according to joint standards

Shared decision-making of location of therapy
depending on severity of disease

Joint quality reporting to AOK



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