



Smart Dialysis System

智能透析系统

January 2018

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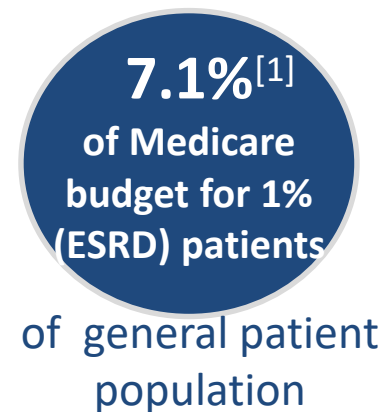
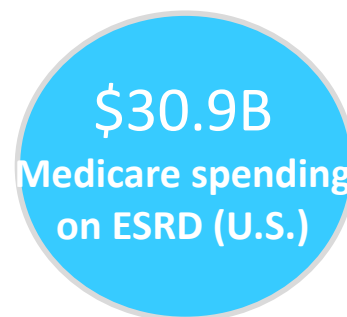
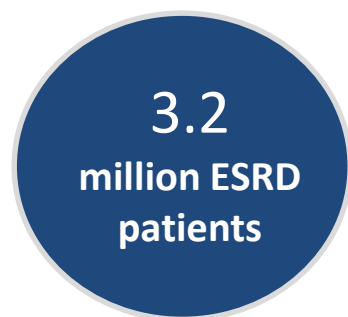
liberDi – In a Glance

- Develops a **portable, automatic** dialysis system to significantly **improve patient's QoL** and **reduce treatment costs**
开发可携带、自动化透析系统，明显改善患者生活质量和降低医疗费用
- December 2016 (incubated)
2016年12月进入孵化
- Multi-billion \$ market
面对以10亿计的市场
- Initial Prototype: FIM H1/18
产品原型:
- Investors:



ESRD Numbers Are Staggering

终末期肾病数量惊人



And the numbers continue to grow driven by the rise in diabetes, hypertension, and other chronic conditions

这些数据因糖尿病、高血压和其他慢性疾病的增长而持续增长

Current Place of Treatment: Dialysis Centers

当前治疗地点：透析中心



Requires travel to center
3-4 times/week
需要每周3-4次



4 hour sessions
每次4小时



Dietary restrictions
饮食限制



Very expensive:
\$88K year/patient;
非常昂贵:8.8万USD/人年



Fatigue, decreased blood pressure,
increased risk of sepsis
乏力，血压降低，感染风险增加

Home-Care Should be the Default

居家治疗应作为首选

- Improved patient QoL and satisfaction 提高患者生活质量和满意度
- Reduced complications 减少并发症
- Reduced treatment costs 降低治疗费用

Virtually all patients with ESRD are candidates for Peritoneal Dialysis at home. ^[11]

所有ESRD患者都合适居家腹膜透析。



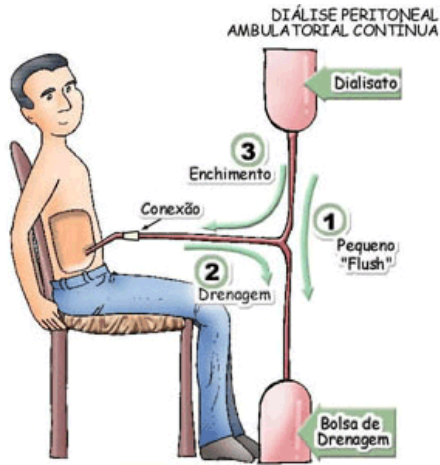
"....Patient in your office, they need dialysis;
HOME CARE should be the **default!**"

对所有来就诊的透析患者，都应把居家治疗作为首选

John Moran, MD FRACP FACD
VP for clinical Affairs **Home Modalities**, Da Vita

Yet Only 11% of Patients Receive Dialysis at Home

只有11%的患者居家透析



Patient

- Rigorous therapy
枯燥的治疗
- Requires sterile environment
需要无菌环境



Physician

- Reluctant to encourage due to compliance issues
医生因为复杂的合规问题不愿鼓励居家治疗
- System lacks monitoring
居家治疗设备缺乏监测



Infection

- High risk of peritonitis
腹膜炎风险高

Dialysis image taken from
<http://www.clinicarenaldemanaus.com.br/CAPD.html>

The low utilization of Home Dialysis is a lost opportunity to improve patient QoL and decrease healthcare costs

居家透析使用率低，使患者失去提高生活质量和降低治疗费用的机会

liberDi's Smart Peritoneal Dialysis System

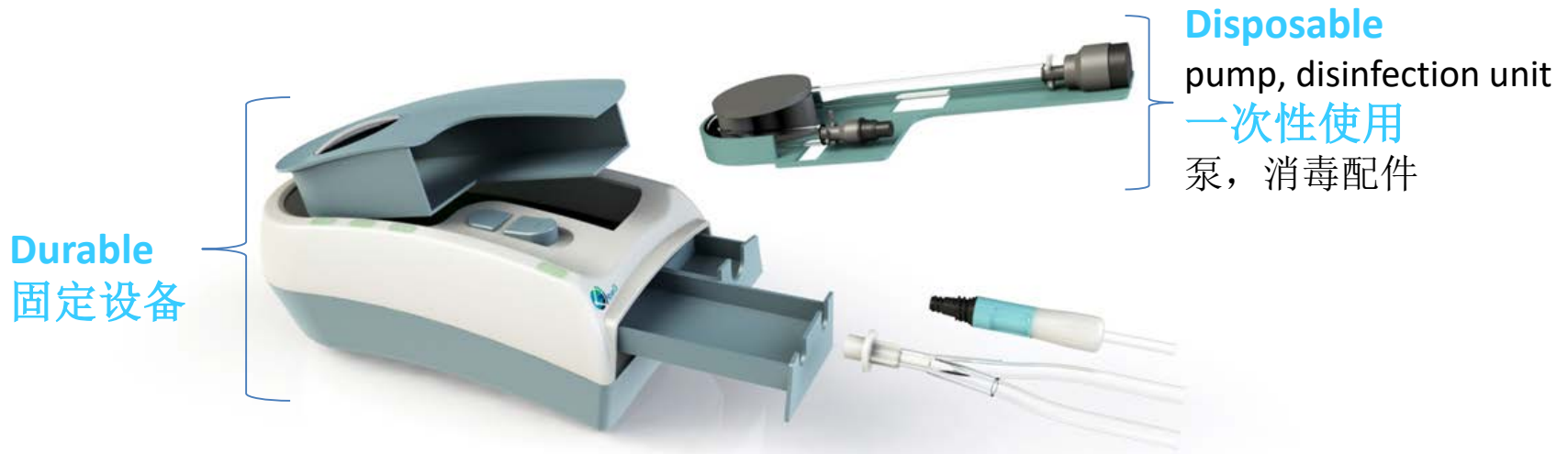
智能化腹透系统

- Eliminates need to travel to dialysis centers
减少患者去透析中心的需求
- Easy-to-operate
易于操作
- Portable, lightweight 量轻，可携带
- Reduces infections 减少感染机会
- Real-time feedback for patient and doctor 为患者和医生提供实时反馈
- Reduces healthcare costs 减少医疗成本

liberDi's solution empowers ESRD patients

liberDi使ESRD患者对生活拥有更佳掌控

liberDi's Smart PD System



Small and lightweight体积小, 重量轻
(270mm x 130mm x 120 - 130mm; ~ 1.9kg)

liberDi's Smart PD System Advantages

产品优势

- Automated, minimum set-up time, easy to operate
自动化，最少设置时间，易于操作
- Patient monitoring 对患者的监测
- Active infection control technology 主动感染控制技术
- Early detection of peritonitis 早期监测腹膜炎



liberDi's Smart PD System

Everyone Benefits: Patient, Provider, Payer

每个人都获益

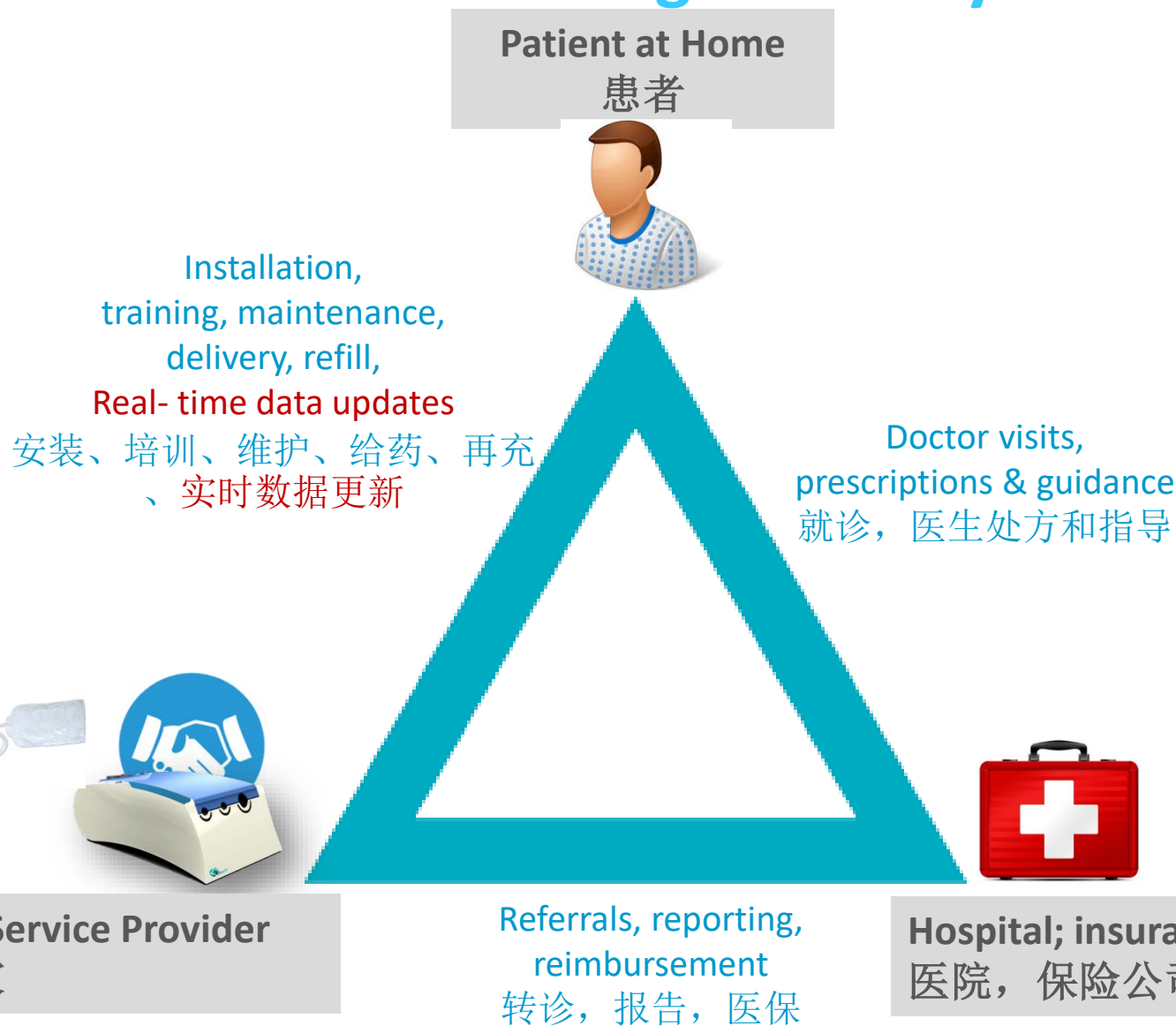
- Allows patients to take an active role in treatment 使患者在治疗中发挥主动作用
- Reduces infection risks 降低感染风险
- Improves home dialysis compliance 提高居家透析的依从性
- Real-time physician update 实时通知医生
- Cost saving system 节省成本



“with unique design of this product patients can safely and easily perform PD in their home. In my opinion liberDi’s product is much better than PD systems which are in the market”

*Dr. Bao Jinfang, Associate Chief Physician,
Nephrology Dept., Shanghai 1st People’s Hospital*

liberDi's Automated Management System



liberDi: Cost Saving System

liberDi: 节约成本

Annual cost per patient in the U.S. (2012)^[3] 美国每位患者每年治疗费用

- Hemodialysis (血透) : \$87,500
- Peritoneal dialysis (腹透) : \$66,750
- **liberDi: \$54,995**

With 414,000 dialysis patients on HD in the U.S.,
total potential yearly savings with liberDi: \$13.5 billion
对美国41.4万血透患者来说，全部使用 liberDi，一年
可减少 **\$135 亿美元**支出

Regulatory and Reimbursement

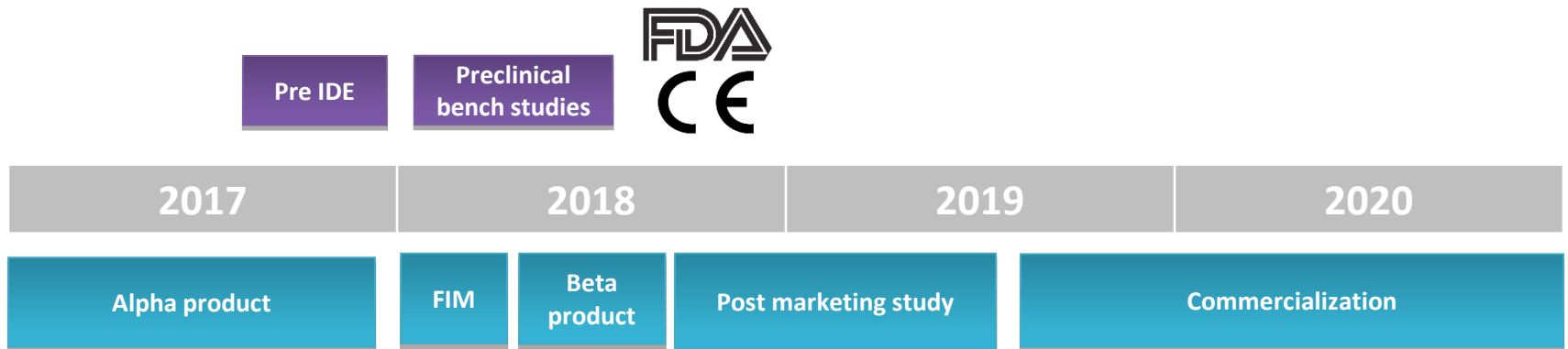
注册与医保

- CE Mark
 - Medical Device class II
 - Safety and usability studies 安全性和实用性研究
- FDA (513g – completed)
 - 510K class II
 - Safety and usability studies 安全性和实用性研究
- Reimbursement established 已有医保编号
 - CPT Codes for procedure and training 已有治疗与培训的医保报销编号

liberDi – Team 核心团队

- **Hezkiah Tsoory, Founder, CEO:** 20+ years' experience R&D, international business, operations; former executive positions with PV Nanocell, D Medical Industries, MCS, Mentorwave, Power Paper
- **Daniel Kushnir, MD, Medical Advisor:** Head of Dialysis Unit, Carmel Medical Center, Haifa, Israel. 20 years' experience in nephrology
- **Victor Frajewicki, MD:** Head, Department of Nephrology and Hypertension, Carmel Medical Center. President, Israeli Society of Nephrology and Hypertension. **20+** years' experience as specialist in nephrology and hypertension
- **Prof. Avry Chagnac, MD:** Head of the Institute of Nephrology, Rabin Medical Center (Beilinson & Hasharon hospitals), Petah Tikva, Israel; 30 years clinical and research experience in the field of Nephrology in general, and in peritoneal dialysis in particular

Time Table



Thank You

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