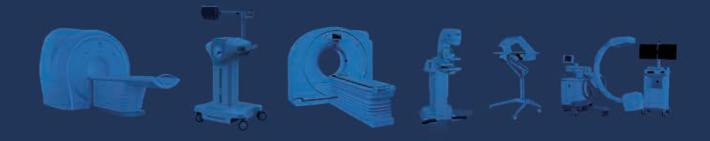


HEALTHCARE GROUP

上海电气医疗集团



SHANGHAI ELECTRIC CREATE OUR FUTURE TOGETHER

上海电气 与创造者共创未来



售后服务及物联网 CUSTOMER SERVICE AND IOT

1

售后服务

互联网与物联网

智能客户服务管理系统

医疗培训中心 Medical Training Center

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粒子线治疗解决方案



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SHANGHAI ELECTRIC GROUP

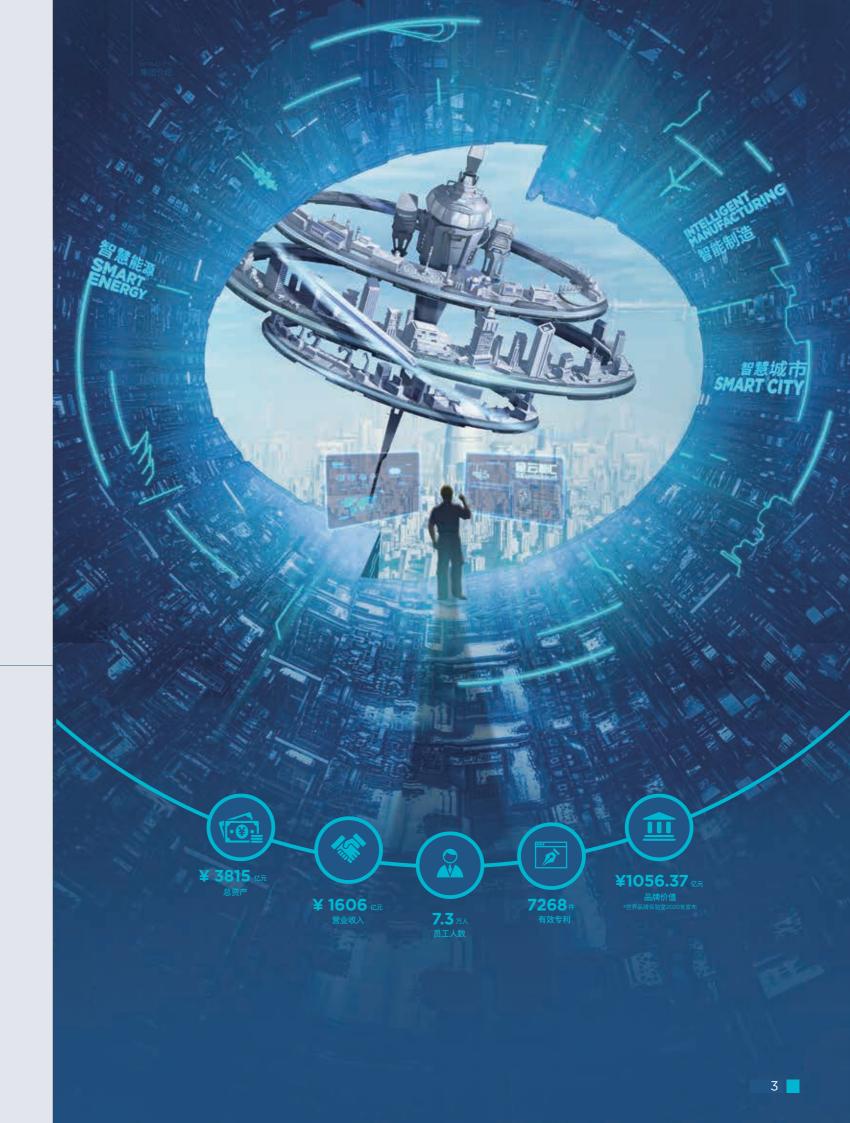
上海电气集团

上海电气是世界级的综合性高端装备制造企业,聚焦智慧能源、智能制造、智慧城市业务领域,为客户提供工业级的绿色智能系统解决方案。我们的业务遍及全球,主要包括新能源、综合能源、环保、医疗器械、智能基础设施及工业自动化等。依托于深厚的制造能力、项目经验和资源基础,上海电气以数字赋能,协同各方大小产业创造者,全力构建智能装备、工业互联网、智慧供应链 "工业三角生态",推动人类进步与社会可持续发展。

作为中国工业的领导品牌,一百多年上海电气集结产业和创造者之大成,创造了中国与世界众多第一。集团品牌在国际和国内多个榜单中名列前茅,荣获中国工业领域最高奖项—中国工业大奖,入选《全球制造500强》、《财富》中国500强,2020年ENR全球最大250强国际承包商排名全球第160位,2020年品牌价值1056.37亿元,位于行业前列。

Shanghai Electric is a large integrated equipment manufacturing group focusing on the business fields of smart energy, intelligent manufacturing and smart urbanization, specialized in energy equipment, industrial equipment and integrationservices. It is committed to providing customers with solutions to technology integration and systems incorporating green, ecofriendliness, intelligence and interconnection. Its products include thermal generator set (coal power, gas power), nuclear power equipment, wind power equipment, power T&D equipment, environmental protection equipment, automation equipment, elevators, rail transit equipment, medical equipment, Oil, Gas & Chemical Engineering and Industrial Internet, etc. So far numerous world leading innovative products have been produced by Shanghai Electric.

As a leading industrial brand in China, the history of Shanghai Electric can be traced back to 1902 and it has always been a pioneer in many fields at home and abroad. Shanghai Electric has topped multiple lists in China and the world, won the China Industry Awards, which is the top prize in China's industrial sector, was listed on Top 500 Global Manufacturer and Fortune 500 in China, and ranked 160th in ENR's 2020 Top 250 International Contractors. Its brand was valued at RMB 105.64 billion in 2020 anking among the top in the industry.







上海电气医疗集团

上海电气医疗集团是上海电气集团旗下集产、学、研于一体的大型医疗企业集团,拥有行业内覆盖面最广的医疗产品和全产业链支持,能够提供医疗设备一站式解决方案,产品包括:CT、磁共振、X线透视摄影系统、数字化X射线系统、移动X射线系统、外科影像、介入影像、乳腺X线摄影系统、彩超、骨密度仪、口腔CT、牙椅、康复机器人、手术机器人、车载及方舱CT、诊疗中心解决方案等,同时还拥有目前中国最大的单体医疗器械"智造"工厂。

医疗集团依托上海电气强大的技术和金融实力,致力于为用户提供从医院整体设计建造到医疗设备配置的系统解决方案。集团业务包括: 医院设计与建造、医疗设备生产制造、医疗设备智慧维保、远程医疗服务、冷链仓储、净化和医废处理以及相关机电配套设备等行业解决方案。

医疗集团目前拥有以医学、工学博士领衔的强大研发团队,并与国内外著名科研院所展开全方位合作。目前医疗设备全国装机用户超过三万家,并拥有超过五百人的售后服务工程师体系,可实现1小时响应,8小时抵达现场,正常24小时内解决全部问题。



Shanghai Electric Healthcare Group is a branch of Shanghai Electric, which integrates production, cooperating and research, with the most comprehensiveness of medical products in the healthcare industry and the support of the entire industry chain. It can provide one-stop solutions including CT, MRI, RF, DR, Mobile DR, Surgical imaging, Intervention imaging, Mammography system, Ultrasound, Bone Densitometer, Dental CT, Dental Chair, Rehabilitation Robotics, Surgical Robotics, Mobile CT, diagnosis and treatment total solutions, etc. Meanwhile it also has the largest single-module "intelligent manufacturing" factory in China.

By the strong technical and financial power of Shanghai Electric, the Healthcare Group is committed to offering total solutions from nosocomial design and construction, medical equipment manufacturing, smart maintenance, tele-medical services, cold chain and warehousing, purification and medical waste treatment, and related mechanical and electrical supporting equipment and other industry solutions.

The Healthcare Group currently has a strong R&D team composed of MD., PhD. and engineers, and has carried out all-round cooperation with global famous research institutes. At present, there are more than 30,000 users nationwide served by more than 500 after-market service engineers who can respond within 1 hour, arrive within 8 hours, and offer solution within 24 hours.







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COMPUTED TOMOGRAPH 计算机断层扫描

青春,承载着无限的梦想和激情,代表着无限的生机与活力,奋斗是青春的底色,行动是最好的传承。在悠久的放射影像行业,上海电气医疗集团是"年轻、青春、有活力的"。

短短几年CT、MR从无到有,从低端到高端,从16层CT进化到128层CT,从永磁MR到超导MR,我们将"壁垒"各个击破。不忘初心,方得始终。CT/MR已经受到多方好评,路漫漫兮,影像技术的路是漫长而且坎坷的,但是青春活力的上海电气医疗集团终将会探索出自己的路。CT在扫描速度上得到了质的飞跃,大大提升了复杂心率和节律情况下冠脉检查的成功率。大孔径CT适用于急诊、门诊、病房以及临床科研。超导MR具备大范围高阶磁场校正的均场系统,获得更具有临床价值的图像。

用5G实时传输诊疗现场的医生操作画面和放射影像,实现多点多地实时互动交流,解决远程 诊断、医疗会诊、远程教学以及质量控制等临床实际问题,从而最终实现"实时诊断"。



MAGNETIC RESONANCE IMAGING

磁共振成像



Youth, carrying unlimited dreams and passions, represents infinite vitality. Spirit of keep fighting is the essence of youth. Action is the best inheritance. Shanghai Electric Health Group is "young, youthful and energetic" in the radiology field with a long history.

In just a few years, we have developed CT and MR from zero to one, from low to high end, from 16-slice CT to 128-slice CT, from permanent magnet MR to superconducting MR, and we have broken down the "barriers" one by one. Never forget why you started, and your mission can be accomplished. CT/MR has been praised by many parties, and yet the road ahead of imaging technology is long and rough, but the youthful and energetic Shanghai Electric Healthcare Group will eventually explore its own way. CT has been promoted achieved a qualitative leap in scanning speed. It greatly improves the success rate of coronary arteriography during complex arrhythmia and rhythm conditions. Large aperture CT is suitable for emergency, outpatient, ward and clinical research. Superconducting MR has a wide range of high magnetic field intensity correction of the shimming system to obtain more images with clinical value.

5G real-time transmission of doctors' operating video and radiology images at the diagnosis and treatment site, realizing multi-point and multi-place real-time interaction and communication, solving clinical practical problems such as remote diagnosis, medical consultation, remote teaching and quality control, and finally realizing "Real-Time Diagnosis".

















超声影像

立足于自主研发,同时和全球知名的院校、研究所、企业开展合 作,开发涵盖高中低档不同层次的产品平台。目前,已经完成了 多款超声产品的研发,涵盖台式、便携、平板和掌上超声等众多 品类,可广泛服务于医院各科室。结合5G远程诊疗功能,可提供 高带低、大带小、一带多的区域化超声整体解决方案。

Based on independent ability of research and development well as further cooperation with well-known global universities, institutes and enterprises, we have developed product platforms covering different levels from low to high end. At present, the research and development of a variety of ultrasound products has been completed, such as desktop, portable, pad and handheld ultrasound, which can meet various demand of the hospital. With the 5G remote diagnosis and treatment function, it can provide a total solution of multiple regional need.

台式超声系列 (临床应用整体解决方案)

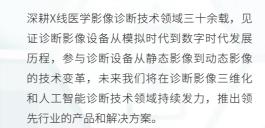
Ultrasound (Total Solution of Clinical Applications)

便携式超声系列 (平板彩超、掌上彩超、5G)

Portable Ultrasound (Pad/Handheld/5G)

诊断X射线





Deeply engaged in the field of X-ray image diagnosis technology more than 30 years, we have witnessed the diagnostics imaging equipment development from analog to digital era, and involved into changes from static to dynamic image of technological. We will continue to make efforts in the field of three-dimensional and artificial intelligent diagnosis technology to launch leading products and solutions in the future.





SELF-LIFTING HEAVY TRUCK LARGE APERTURE CT MEDICAL VEHICLE

自升降重卡大孔径CT医疗车

13.5米半挂式重卡,独有厢体自升降设计,机动灵活,兼具车载CT和方舱CT的优势。搭载AI和5G 技术,平战结合应用,大大提升应急移动医疗救治储备能力。

13.5 meters semi-mounted heavy truck, unique truck body lifting design, flexible, both the advantages of vehicle CT and square cabin CT. Equipped with AI and 5G technology, the flexible transformation of normal use and emergenct use greatly improves the reserved capacity of mobile medical treatment in emergency.

产品序列 Product list

直接数字 摄影系统 DR

多功能X线 成像系统 RF



核心零部件自主生产

Self-manufacturing Core Components

X线球管 X-ray Tube

影像平板探测器 Digital Panel Detector













MEDICAL ROBOTICS 医疗机器人

通过智能化的整体解决方案,应用智能影像设备与医疗手术机器人相结合,实现一体化手术 解决方案,从研发、设备制造生产、市场营销多维度打造专业化产业链。产品涉及骨科关节 置换手术机器人、脊柱手术机器人、外骨骼机器人、神经外科手术机器人、康复机器人等相 关领域设备及耗材。

Through the intelligent total solution, we apply the combination of intelligent imaging equipment and medical surgical robotics to realize the integrated surgical solution, and create a professional industrial chain from the multi-dimensional aspects of R & D, equipment manufacturing and marketing. Products involve in: orthopedic artificial joint replacement surgery robotics, spine surgery robotics, exoskeleton robotics, neurosurgical surgery robotics, rehabilitation robotics and other related medical equipment and consumables.

ORTHOPEDIC SURGICAL ROBOT 骨科手术机器人

采用AI、深度学习、导航控制等最新技术,围绕骨科导航定位系统,从医学影像诊断、手术规划软 件、耗材等多维度打造智能化的关节置换手术数字化解决方案,辅助外科医生开展关节置换手术,解 决医学成像诊断、术中导航、术后评估等多种临床问题。

骨科手术机器人

Around the orthopedic navigation and positioning system, the latest technologies such as Al, deep learning and navigation control are adopted to build an intelligent and digital joint replacement surgery solution which is based on the perspectives of medical image diagnosis, surgical planning software and consumables. Assisting surgeons in joint replacement surgery to solve a variety of clinical problems in medical imaging diagnosis, intraoperative navigation, and postoperation evaluation.



导航子系统

导航、显示和人机交互

Navigation, demonstration and human computer interaction

标识物和手术器械的识别

identification

手术器械的操作



REHABILITATION ROBOT 康复机器人

康复智能化解决方案,为各康复亚分支提供个性化的产品解决方案。在提升服务效能、确保治疗方案安全高效的同时,优化治疗方案,提高科室运行经济效益,帮助患者早日回归生活。

Intelligent solutions for rehabilitation of sub-braches provide personalized service. It can help patients return to normal life as soon as possible and can improve the revenue of the hospital due to the improved efficiency of treatment therapy with service and the optimized medical plan.





SensiTouch 2 感知康复训练设备

0.1秒视觉反馈标准化训练工具

0.1 second visual feedback standardized training tool





沉浸式多维度康复训练与评估 Immersive multidimensional rehabilitation training and evaluation

NaturaGait 1 减重步态训练系统

国内首创骨盆支撑减重结构 Domestically first pelvis sustentation partial weight structure

PowerStar 1 等速肌力训练系统

床旁康复,适用于小肌力人群, 全周期康复

Bedside rehabilitation suitable for people with small muscle strength, full cycle rehabilitation











MEDICAL INFORMATION SYSTEM SOLUTION

医疗信息化解决方案

MEDLX数据端口平台,可将IHE、HL7等不同的国际相关标准集成,通过有线无线方式统一集成在数据信息平台延伸联接至CIS,将数据应用开发形成人工智能重症预警辅助系统。

The MEDLX data platform can integrate different international standards such as IHE and HL7. Data can be integrated in the information platform and connected to CIS in a unified way through wired and wireless methods to form an artificial intelligence critical early warning auxiliary system.



实时

Synchrony

自动捕获和存储医疗设备参数,可实时 数据采集,提升临床数据质量与时效 性。

Automatic capture and storage of case data, real-time data collection to ensure the improvement of the quality and timeliness of clinical data.

完整

Integration

支持多种类、多品牌、多型号的ICU医 疗设备数据采集,有利于形成更完整的 临床数据端口平台。

Data collection accessible to various types, brands, and models of ICU medical equipment, conducive to the formation of a more complete clinical data platform.

灵活

Flexibility

产品先天具有互联网和移动医疗 基因,具有便捷的移动功能和强 大的互联网医疗特点,可提供订 制化服务与后期的系统更新。

Product featured with Internet and mobile medical treatment by advantages of convenient mobile functions and Internet medical care, private customization service and subsequent system updates.

安全

Security

提供应用于临床报警和智能提醒 的各种CIS系统,并对数据进行 加密安全处理,确保病患数据的 隐私性。

Various CIS systems for alarming and intelligent reminders, encrypted and secured data to ensure the privacy of patients.

便捷

Convenience

简洁易用、以临床医护人员使用 习惯为出发点设计制作产品,高 扩充性可实现大型支持团队与设 备远程管理。

Concise and user-friendly products that are manufactured based on the using habits of clinical medical staff. Enable sizable team support and remote management of equipment with high scalability.

Product Introduction

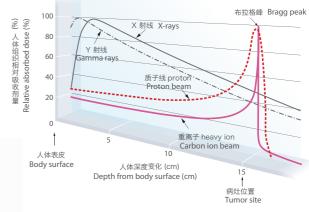


Prostate cancer, chordoma, ocular cancer, choroidal melanoma, inoperable brain tumor, etc., which become the world's largest number of diseases who receive particle line therapy, particle line therapy can achieve the effect of other treatment methods.

China has a large base of cancer patients, and the number of categories patients who need dozens of particle line therapy centers to satisfy their requirements.

We give full play to the industrial advantages of collectivization in the aspects of R&D and manufacturing of key components, integrated design, engineering design and construction to build an advanced particle treatment center.

人体吸收放射线计量的深度分布特性 Depth distribution characteristic of absorption radiation in the body



照射 / 损伤肿瘤以外的 正常细胞

The deeper color indicates high dose of radiation



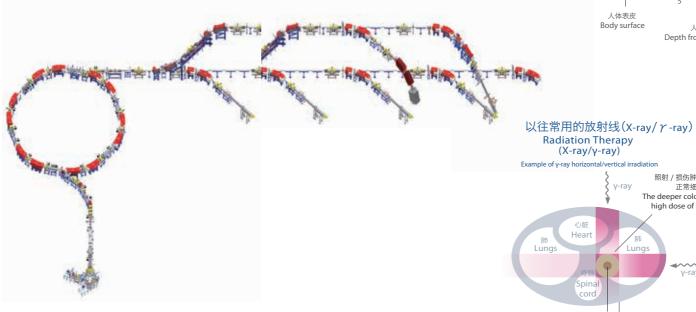
PARTICLE THERAPY SOLUTION

粒子线治疗解决方案

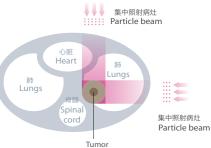
前列腺癌、脊索瘤、眼癌、脉络膜黑色素瘤、无法手术的脑部肿瘤 等,现已成为世界上接受粒子线治疗人数最多的病种,粒子线治疗 上能够获得其他治疗方式难以企及的效果。

中国肿瘤患者基数庞大,仅这些大类的病患人数就需要几十家粒子 线治疗中心的医疗能力才能满足需求。

我们在关键部件研发制造、集成设计、工程设计与建造方面充分发 挥集团化产业优势,打造先进的粒子线治疗中心。



粒子线(质子线,重离子线) Particle therapy (proton beam, carbon ion beam)







DIVERSIFIED FINANCIAL TOOLS

多元化金融工具

广泛地运用金融工具,解决医院在设备采购和发展中遇到资金瓶颈,包括融资租赁、分期付款、售后回租、股权投资等一系列手段打开市场,帮助用户迅速发展。

Use various tools extensively to solve the financial bottlenecks encountered by hospitals in equipment procurement and development, including financing, leasing, installment payments, sale-leaseback, equity investment and other means to open up the markets and support clients in growing their business.



FINANCING SERVICE

融资服务



融资租赁 Financing and Leasing

• 针对不具备银行融资能力或阶段性融资困难的业主作为赊销的替代方案(有物权保障)

For owners who do not have bank financing capabilities or have financing difficulties in stages, as an alternative to credit sales (with property rights protection)

• 出租人有税收抵扣或租赁结构有税收套利
The lessor has tax deductions or the lease structure has tax arbitrage



项目融资 Project Financing

- 银行信贷融资
- Bank credit financing
- 或因项目金额与风险较大、融资期限较长而采取特殊 融资安排(纯项目融资)

Special financing arrangements (project financing) due to the relatively large amount of the project and the relatively long financing period



商业保理 business Insurance and Claims

将赊销形成的未到期应收账款在满足一定条件的情况下,转让给租赁公司,以获得流动资金支持

The unexpired accounts receivable formed by credit sales shall be transferred to the leasing company to obtain liquidity support if certain conditions are met

提前获得回款,增加企业流动性
 Earn money back in advance to increase corporate liquidity



股权融资 Equity Financing

针对业主要求上海电气配合设备出口或工程参股项目公司

Cooperate with the equipment export or engineering participation in the project company according to the owner's request



ENGINEERING PROCUREMENT CONSTRUCTION

EPC服务

我们拥有机械、建筑、化工医药、轻工的甲级资质,以及城乡规划、电力工程、市政排水、市政热力、建材玻璃、物流仓储、三废处理、对外经济合作等多项资质,是集工程咨询、工程设计、工程总承包、工程建设与设备监理、工程投资审价、审图于一体的大型综合性工程企业。同时拥有电梯、空调等行业先进的机电类设备和CT、MR、复合手术室等一批高端医疗设备和医院系统解决方案。资源唯有集中整合,统一调配,才能产生裂变。上海电气依靠集团多元化产业优势,坚持"平战结合、快速转换"的建设理念,使综合医院在平时和战时均能最大程度发挥作用。

We have Grade A qualifications for machinery, construction, chemical medicine, and light industry, as well as many other qualifications for urban and rural planning, power engineering, municipal drainage, municipal heating, glass for buildings, logistics and warehousing, three-waste treatment, and economic cooperation abroad. It is a large-scale integrated engineering corporation providing solutions in consulting, design, general contracting, project construction as well as equipment supervision, project investment pricing audit, and project plan audit. It has advanced electromechanical equipment like elevator, air-conditioning that stay the forefront of the industries, and a variety of medical equipment and hospital system solutions such as CT, MR, and hybrid operating rooms. Only by centralized integration and unified deployment, we can make full use of the resources. Anchoring on the group's advantages of diversified industries and adhering to the concept of "adaptable to emergency and common uses", we enable the hospitals to play the role in both emergency and common uses.



工程全过程所需**资质齐全**,拥有**咨询、设计、造价、 环评、承包、 监理** 等多项甲级资质

Complete qualifications required for the whole process of the project. Class A qualifications such as consulting, design, costing, environmental assessment, contracting and supervision

包括化工石化医药行业(医疗器械含药品内包装)专业甲级资质

Professional Class A qualifications including chemical, petrochemical and pharmaceutical industry (medical devices including drug inner packaging)

集区域规划、技术服务、工程设计、设备成套、工程总承包、项目管理、后期评估等为一体 为用户提供项目全过程服务和综合解决方案

Integrate regional planning, technical services, engineering design, complete equipment, general contracting, project management, post-assessment, etc. to provide whole project service and comprehensive solutions



INDUSTRY 4.0 STANDARD

工业4.0标准



部件追溯监控 Component Traceability Monitoring



INTELLIGENT INDUSTRIAL PRODUCTION

智能化工业生产





数字平板 探测器 Digital Panel Detector

超声探头 US Detector

严控生产成本
Strictly Production
Costs Control

产品毛利率 Gross Product Margin

> 核心部件 全部自主生产

Self-manufactured Core Components



Customer Service and IoT



INTERNET AND IOT

互联网和物联网



基于物联网技术的远程服务管理体系。通过安装在设备中的"哨兵"系统,实时 监控产品运行情况,在用户报修前发现故障。

A remote service management system is based on the IoT through the "sentinel" system installed in the equipment. This has enabled the real-time monitoring of product operation so faults can be found before the users are aware.



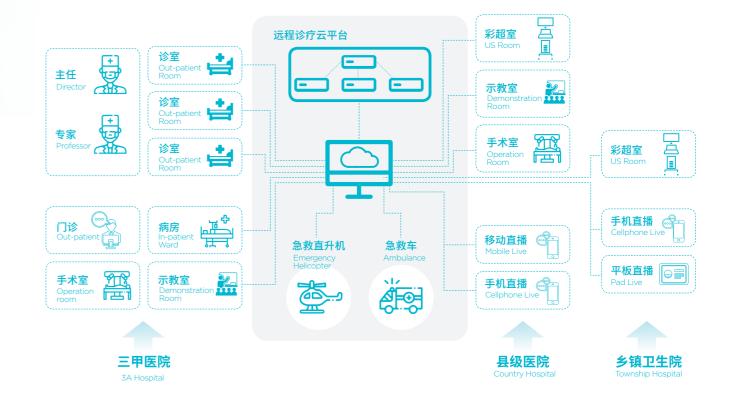


影像诊断服务 Cloud Imaging Diagnosis Service

基于云技术的医学影像远程诊断系统,可将影像数据高速上传至云端,专家可以 迅速发起会诊完成诊断。跨越时空向更多人群提供远程诊疗、远程示教、远程咨 询等服务。

The medical image diagnosis system is based on "cloud" technology can upload image data at high speed, thus experts can initiate and complete the diagnosis quickly. We provide services such as remote diagnosis, treatment, teaching, and consultation for more people.





INTELLIGENT CUSTOMER SERVICE MANAGEMENT SYSTEM

智能客户服务管理系统

• 遍布全国 28 个分公司的 500 多名工程师365天、7*24小时随时待命 More than 500 engineers from 28 nationwide branches are on standby 7*24 hours

总部 50 多名技术专家随时提供装机、维修技术支持

More than 50 technical experts from the headquarters provide technical support for installation and maintenance at any time

报修后 30 分钟内总部资深工程师在线响应

Senior engineers will respond online within 30 minutes after applying for repairs

需要上门维修的,借助地图定位系统可以调派距离最近的工程师,保证 ______4 小时内到位
For on-site maintenance, the nearest engineers can be dispatched within 24 hours via the advanced positioning system

装机或维修后 24 小时内由呼叫中心进行电话回访

The telegraphic customer care will be reached within 24 hours after installation or maintenance

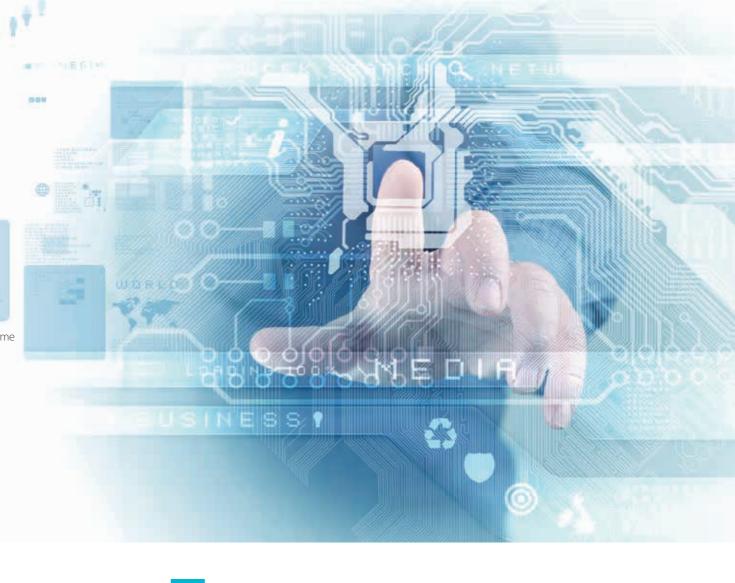
保修期内提供 4 次定期上门保养服务

We provide 4 regular on-site maintenance services during the warranty period

保修期内保证开机率达到 95%

The normal operation rate of the machines is guaranteed up to 95%





MEDICAL TRAINING CENTER

医疗培训中心

建立临床应用研究及培训中心,具有临床科研、应用研究、临床培训等一系列功能

A clinical application research and training center has been established with a series of functions such as clinical scientific research, application research and clinical training.

服务于用户,提升用户的临床应用水平,发挥设备真正的价值

Serve the users, improve the users' clinical application level, and to realize the true value of the equipment.









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