MedVision

为生命而创新

www.medvisiongroup.com.cn

EndoVision

MedVision

Surgical Simulator

内窥镜手术模拟器

www.medvisiongroup.com.cn

Real-feel surgical simulation

具有真实感的手术操作模拟

EndoVision 内窥镜手术模拟器

EndoVision sets the standard in simulation for hands-on-training in endoscopic procedures. Allowing trainees realistic and safe clinical experiences, EndoVision o ers exposure to an extensive library of modules and patient cases to challenge diagnostic and psychomotor skills in preparation for real presentations.

True-to-life instruments for procedures in Bronchoscopy, Gastroscopy and Colonoscopy, along with an interactive 3D anatomy atlas, videos, texts and automatic data capture for quality debriefing, high standards of competency are assured.

EndoVision为内窥镜手术的实践训练设定了模拟标准。EndoVision可为受 训者提供真实、安全的临床体验，让他们接触到大量不同模块和患者案例 库，迎接诊断和心理技能训练方面的挑战，为临床实践做好准备。

用于支气管镜、胃镜和结肠镜检查的逼真仪器，以及交互式三维解剖图谱、 视频、文本和自动数据捕获功能，使得其可以输出高质量的任务报告，并 保证了高标准的运行能力。

The simulator o ers various modules and their combinations, i.e. bronchoscopy, gastroscopy, colonoscopy and an all-in-one version.
该模拟器具备各种模块及其组合，即支气管镜、胃镜、 结肠镜和一体式版本。

EndoVision Standard 标准版

- Manage complications caused by trainee's actions
- 2 FullHD displays with one of them being a touchscreen for all your menu controls
- Haptic feedback for realistic tissue resistance
- Interactive 3D anatomy atlas with real-time tracking of the instrument
- Real patient cases
- Detailed automatic recording of all actions
- A set of virtual tips with videos, texts and visual cues
- Mobile wheelbase
- Height adjustable

- 处理受训人员操作所引起的问题
- 2个全高清显示屏，其中一个是触摸屏，包含所有菜单控件
- 基于真实组织阻力的触觉反馈
- 具有仪器实时追踪功能的交互式三维解剖图谱
- 真实患者案例
- 自动记录所有操作的详情
- 提供带有视频、文本和视觉显示的虚拟提示
- 可移动轴距
- 高度可调

Software

- Training and exam modes
- Detailed statistics after each module
- High definition 3D graphics
- Visual tips and guidelines
- Video and text materials
- 3D anatomy atlas

软件

- 培训与考试模式
- 每个模块后有详细数据统计
- 高清三维图形
- 视觉提示和指南
- 视频和文字资料
- 三维解剖图谱

Endoscopy intruments

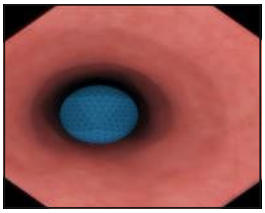
- Real adapted gastroscope, bronchoscope, colonoscope
- High-precision no-lag instrument tracking system provides accurate, smooth response for all your actions

内窥镜检查仪器

- 适应真实情况的胃镜、支气管镜、结肠镜
- 高精度无滞后的仪器跟踪系统能够针对您的所有操作 做出准确、流畅的响应

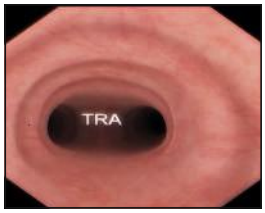
Bronchoscopy Modules
支气管镜检查模块

Essential skills
基本技能



Bronchoscope Handling Skills in Real Anatomical Environment

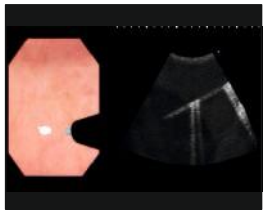
真实解剖环境下的支气管镜操 作技能



Knowledge of Anatomy in Bronchoscopy

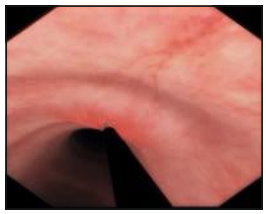
支气管镜检查中的解剖学 知识

Transbronchial needle aspiration
经支气管针吸活检



EBUS-TBNA

经支气管镜超声引导针吸活检术



TBNA

经纤维支气管镜针吸活检术

Instrument handling skills
仪器操作技能

Biopsy forceps

活检钳

Endoloop

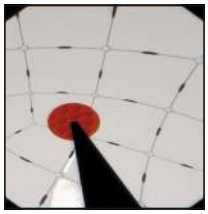
圈套器

Coagulator Control (monoelectric and argon plasma unit)

凝固器控制（单电和氩等离子体装置）

Forceps for Grab of a Subject

抓取物体用钳



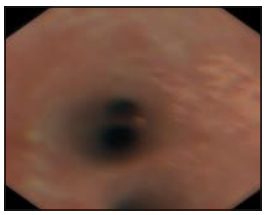
Puncture Needle

穿刺针

Diagnostic Bronchoscopy
诊断性支气管镜检查

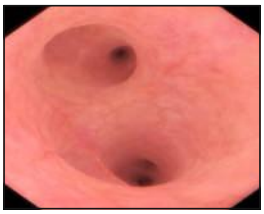
Biopsy in Bronchoscopy

支气管镜活检



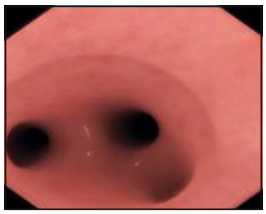
Bronchoalveolar Lavage

支气管肺泡灌洗



Pediatric Bronchoscopy

小儿支气管镜检查



Routine Endoscopy Skills

常规内窥镜检查技能

Therapeutic Bronchoscopy
治疗性支气管镜检查

Balloon dilatation

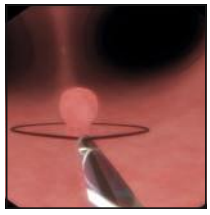
球囊扩张术

Bleeding Control

出血控制

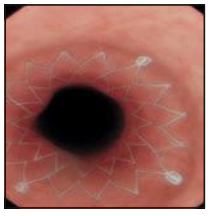
Foreign Body Removal

异物取出术



Polypectomy in Bronchoscopy

支气管镜下息肉切除术



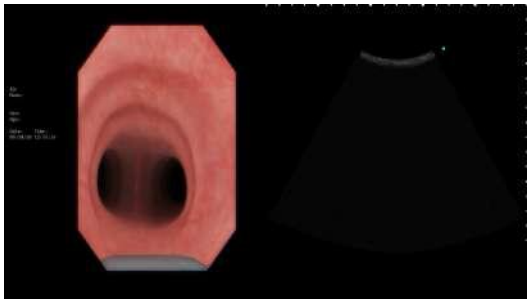
Stenting

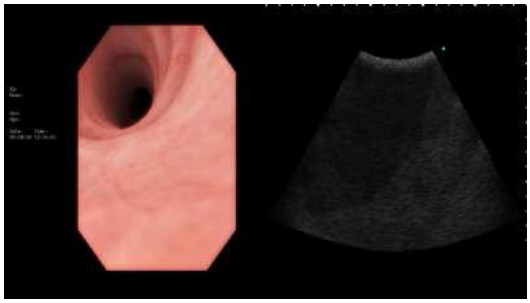
支架植入术


MedVision

Endobronchial ultrasound transbronchial needle aspiration

经支气管镜超声引导针吸活检术





Due to the close proximity of vessels and unavailability of endoscopic landmarks, we have to use something that could indicate the location of the anatomical structures outside the walls of the bronchi. That “something” is ultrasound (US), and the procedure becomes an ultrasound-guided TBNA technique.

How to actually perform an ultrasound scanning, if standard probes are not designed to reach these nodes? EBUS bronchoscope, i.e. a bronchoscope with an ultrasound sensor in the tip making it possible to run an ultrasound-guided procedure.
The TBNA procedure is completely the same, but now it is possible to provide real-time imaging of the nearby anatomical structures behind the bronchial wall.

In such bronchoscopes, the lenses have such an angle of view (30 to 45 degrees) that would make it possible to maximally remove the probe from the field of view, but at the same time maintain the usual view.

由于离血管很近，且无法利用内窥镜标志物，我们必须借助能够指示支气管壁外解剖结构位置 的东西。这个“东西”就是超声波（US），超声波的应用使得原来的检查过程变成了超声引导下的 TBNA技术。

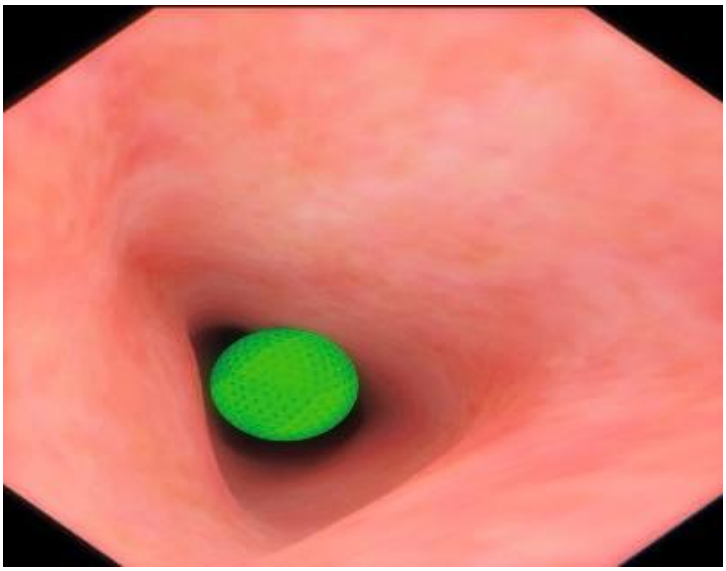
如果标准探头不能到达目标节点，那么如何进行超声扫描？超声支气管镜（EBUS ），即尖端带有超声 波传感器的支气管镜，使得超声引导操作成为可能。它与经纤维支气管镜针吸活检术（TBNA）程序完全相同，但可以提供支气管壁后附近解剖结构的实时 图像。

在这种支气管镜中，镜头的视角为30到45度，这可以最大限度地将探头从视野中移除，但同时保持正常 视野。

Upper GI Endoscopy 上消化道内镜检

Gastroscopy Modules 胃镜检查模块

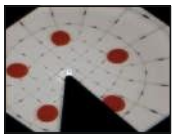
Essential skills
基本技能



Gastroscope Handling Skills in Real Anatomical Environment

真实解剖环境下的胃镜操作技能

Instrument handling skills
仪器操作技能

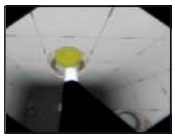


Biopsy forceps

活检钳

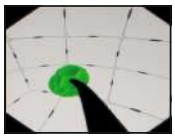
Coagulator Control (monoelectric and argon plasma unit)

凝固器控制（单电和氩等离子体装置）



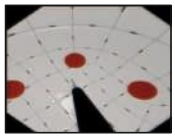
Forceps for Grab of a Subject

抓取物体用钳



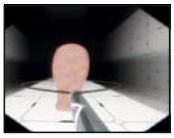
Injection needle

注射针



Puncture needle

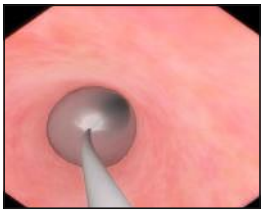
穿刺针



Endoloop

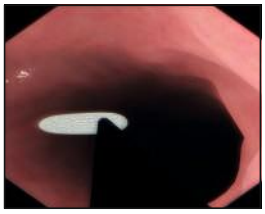
圈套器

Therapeutic Gastroscopy
治疗性胃镜检查



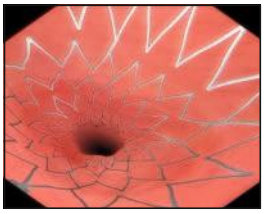
Balloon dilatation

球囊扩张术



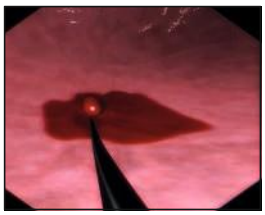
Foreign Body Removal

异物取出术



Stenting

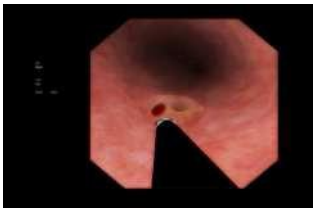
支架植入术



Upper GI Bleeding

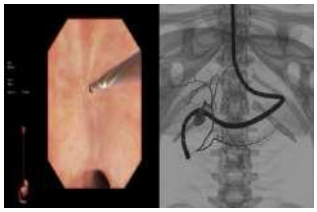
上消化道出血

Diagnostic Gastroscopy
诊断性胃镜检查



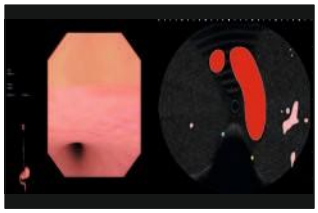
Esophagogastroduo-denoscopy (EGDS)

食道、胃、十二指肠镜检查（EGDS）



Endoscopic Retrograde Cholangiopancreatography

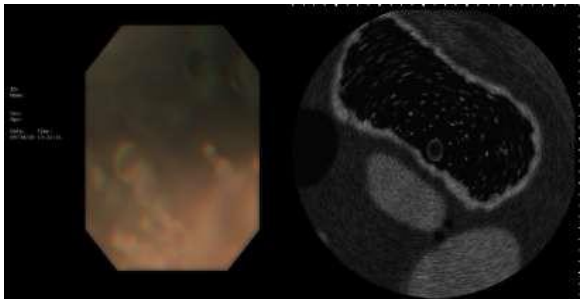
经内镜逆行胰胆管造影

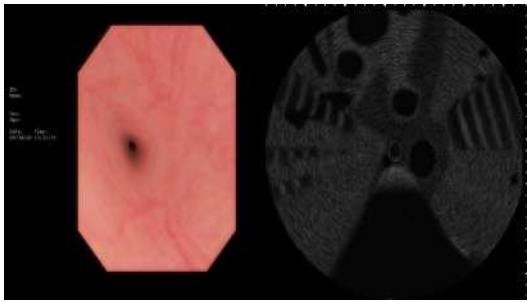


Endoscopic Ultrasonography

内镜超声检查

Endoscopic Ultrasonography
内镜超声检查





An obvious advantage of this technique is the ability to produce images of organs that are inaccessible by conventional ultrasound scanning, i.e the mediastinum organs and structures such as vessels, lymph nodes, etc. It is also possible to see organs "from the other side" adding funstionality to conventional ultrasound examination. One more important feature to mention is the examination of gastric submucosal tumors (or deeper layers of the GI tract walls), which allows making diagnosis when regular biopsy is not informative or sampling is not possible.

Along with ultrasonic bronchoscopes, ultrasound gastroscopes are used. There are two types of ultrasound gastroscopes: a curved, linear-array gastroscope (similar to EBUS-TBNA bronchoscope) and a radial-array gastroscope. The latter allows imaging in a circular plane. Considering that such imaging is untypical and requires certain skills, the design of our simulator is focused on the radial- array type of probes.

The module contains 4 clinical cases:
- Healthy Patient (Mediastinal Examination)
- Neoplasm in the Lung
- Healthy Patient (Abdominal Examination)
- Choledocholithiasis (Gallstone Disease)

该技术的一个明显优势是能够生成传统超声扫描无法获得的器官图像，即纵隔器官和结构，如血管、 淋巴结等。同时，也可以“从另一边”看到器官，这使得传统超声检查的功能性得到了扩展。其次，另 外一个重要的特征是该技术可用于胃粘膜下肿瘤（或胃肠道壁的深层）的检查，当常规活检不能提供 信息或无法采样时，可以利用内镜超声作出诊断。

除了超声支气管镜外，还可使用超声胃镜。超声胃镜有两种类型：弯曲、线状胃镜（类似于EBUS- TBNA支气管镜）和放射状胃镜。后者可以在圆形平面上成像。考虑到这种成像是非典型的，且需 要一定的技巧，我们模拟器的设计重点是放射状探头。

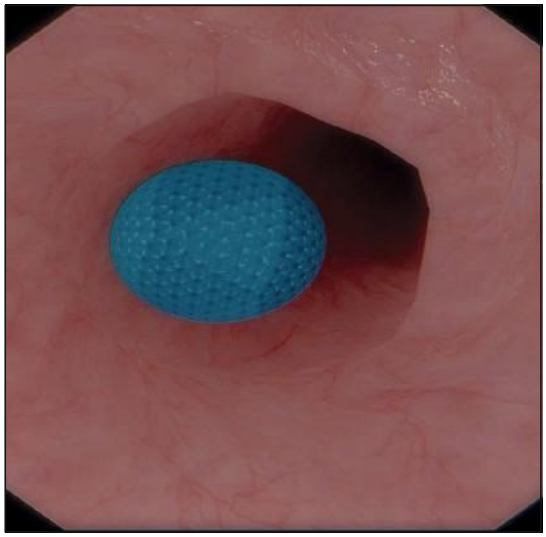
该模块包含4个临床案例：
- 健康患者（纵隔检查）
- 肺内肿瘤
- 健康患者（腹部检查）
- 胆总管结石（胆石病）

Lower GI Endoscopy下消化道内镜检查

Colonoscopy Modules 结肠镜检查模块

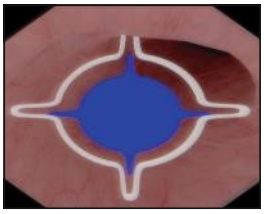
Essential skills

基本技能



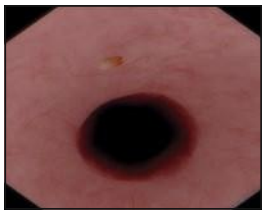
Colonoscope Handling Skills in Real Anatomical Environment

真实解剖环境下的结肠镜操作技能



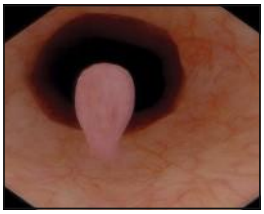
Colonoscopy Navigation

结肠镜导航



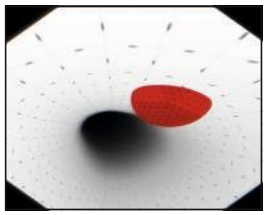
Mucosal Assessment Skills in Colonoscopy

结肠镜检查中的黏膜评估技能



Pathology Visualization Skills

观察病理结构的技能

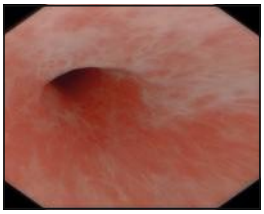


Targeting in Colonoscopy

结肠镜定位

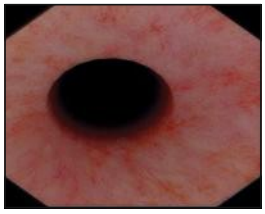
Sigmoidoscopy

乙状结肠镜检查



Random Anatomy of Sigmoidoscopy

乙状结肠镜下解剖结构观察

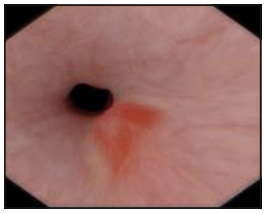


Sigmoidoscopy

乙状结肠镜检查

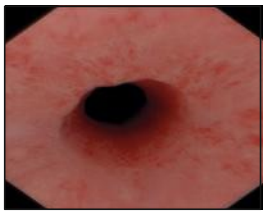
Diagnostic colonoscopy

诊断性结肠镜检查



Biopsy in Colonoscopy

结肠镜活检

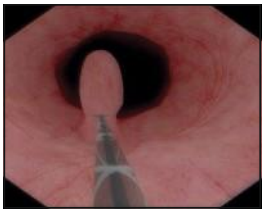


Colonoscopy

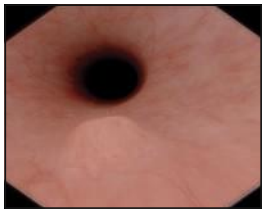
结肠镜检查

Therapeutic colonoscopy

治疗性结肠镜检查

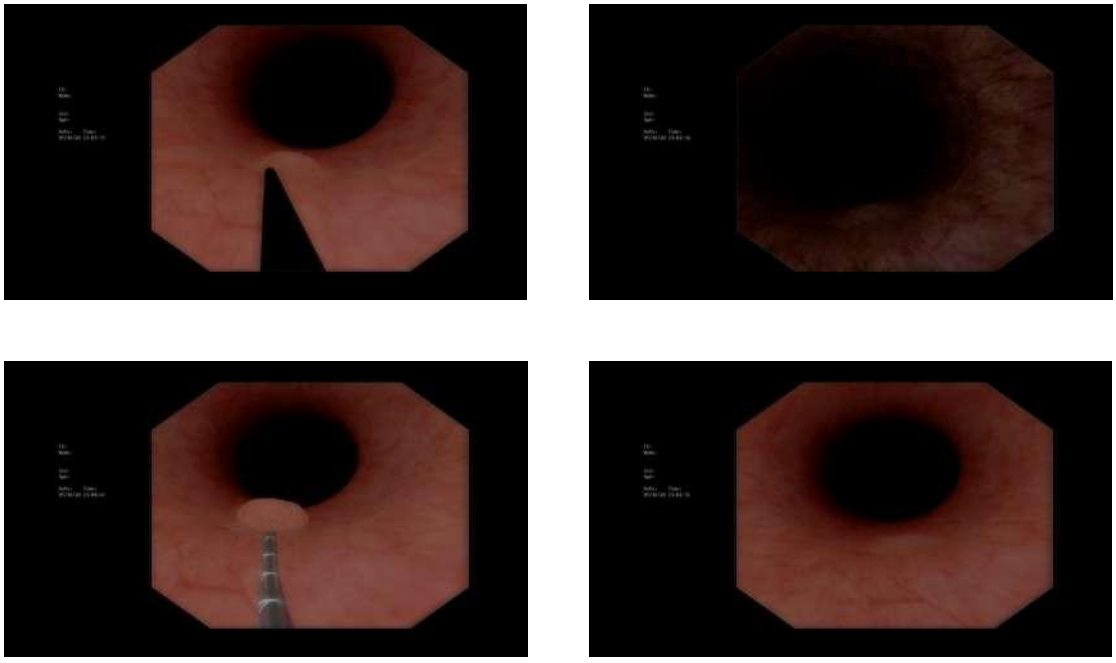


Polypectomy in Colonoscopy



Endoscopic Mucosal Resection

Endoscopic Mucosal Resection
内镜下黏膜切除术



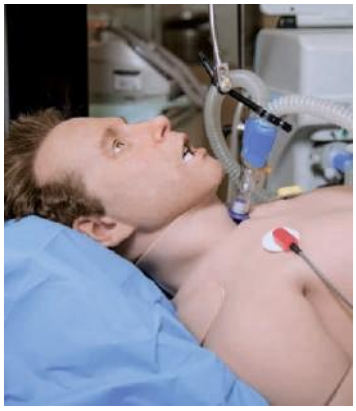
One of the standard treatments for patients with early-stage colon cancer is endoscopic mucosal resection (EMR). Under certain criteria, neoplasms can be resected in a minimally invasive manner preventing more serious forms of cancer. This is one of the cornerstones of modern endoscopy.

The purpose of the module is to learn and practice the main stages of the procedure and to demonstrate the possibility of using extra types of examination such as narrow band imaging endoscopy.

早期结肠癌患者的标准治疗方法之一是内镜下黏膜切除术（EMR）。在一定的标准下，肿瘤可以以微 创方式切除，以防止更严重的癌症发生。这是现代内窥镜检查的基石之一。

本模块的目的是学习和实践该检查过程的主要步骤，并证明使用额外类型检查（如窄带成像内镜） 的可能性。

Have you seen our patient simulators? 看看我们不同适用年龄阶段的患者模拟器



Leonardo
成人模拟器

Mia
新生儿模拟器

Arthur
儿童模拟器

MedVision is an innovative and fast-growing company that specializes in designing and manufacturing high-fidelity medical simulators and having more than nine years of history in the development of medical simulation equipment.

MedVision是一家创新和快速发展的公司，专业设计和制造高保真医疗模拟器，在医疗模拟设备的开发方面拥有超过9年的历史。

服务

我们知道您在教育项目上做出了巨大的投资，因此我们设计了充分的服务解决方案，从选择正确的模拟器到将其完全集成到您的模拟项目中，我们在每一个步骤都提供了帮助。

无论是产品安装、预防性维护、故障排除还是维修，我们的团队都将帮助您优化模拟器的全部功能，帮助您高效地实现项目的目标。

有关我们服务方案的进一步信息，请联系您的区域代表。

联系我们

请发送电子邮件与当地区域代表联系：
poyton@poyton.cn

作为一家国际公司，**MedVision**一直致力于通过模拟促进医疗保健领域的优质教育发展。我们利用创新设计和尖端技术打造各种模拟器，包括成人、儿童、新生儿和手术模拟器。欲了解更多关于我们产品的信息，请联系您当地的区域代表。

销售查询:

大中华区域： 0086-15921959878/0086-15901939090 Email: poyton@poyton.cn

全球，日本
+8 (104) 571-66497
mail@medvision.jp

欧洲
+43 (664) 414-8288
sales@mse-group.co

美国
+1 (888) 584-7119
sales@medvisiongroup.com

独联体、中东、非洲
+7 (843) 227-4063
sales@medvisiongroup.com