



The Walden Group

Q2 2017 Strategic Healthcare M&A Report

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The Strategic Healthcare M&A Report analyzes important merger, acquisition and strategic transactions taking place in the healthcare industry. A complimentary copy of the Report can be obtained by subscribing at www.waldenmed.com. Please feel free to e-mail suggestions for future content to the address listed above.

With 20 years of experience and a lengthy track record, The Walden Group is a strategic healthcare investment banking and consulting firm, specializing in fitted mergers and acquisitions for medical device, diagnostics, healthcare IT, healthcare services and niche pharmaceutical firms.

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Overall Healthcare Climate

While the fate of Obamacare is not clear, the Trump administration can upend it by not funding the healthcare subsidies that make the new plans affordable. If healthcare markets are not stabilized, the coverage of some 11 million people is at stake, with ripple effects throughout the healthcare sector. Yet, core fundamentals in the sector continue to follow demographic patterns and point toward growth as the population grows and ages.

While hardly representative of the market, many companies announced positive results for the quarter ended June, 30, 2017. Among them:

- **Stryker** posted revenue growth of 6.1%, with orthopedic implants, med surg products and neurosurgery gains compared to last year, offset by a softer quarter in spine.
- Ahead of its acquisition by Becton Dickinson, **C.R. Bard** recorded revenue growth of 5.2% (6.4% organic).
- Revenue of **Edwards Lifesciences** were up 13.8%.
- **Thermo Fisher Scientific's** revenue for the quarter grew 10% (organic 4%) to \$4.99b.
- **Quiagen** announced revenue growth of 4%, with molecular diagnostics growing 6%.
- For **Cerner**, bookings in the second quarter of 2017 were \$1.6b, which is an all-time high and an increase of 16% YOY. Second quarter revenue grew by 6% (but below guidance).

M&A Dynamics of H1 2017

M&A deal activity for the six months ended June 30, 2017 point to key growth areas and acquisition themes.

Replenishing Drug Pipelines

- **J&J** is paying \$30b for **Actelion, Ltd.** for its high-price, high-margin drugs for rare diseases and R&D pipeline. J&J's biggest product, Remicade for arthritis, is facing cheaper competition from biosimilars.
- **Eli Lilly and Company** is spending \$960m for **CoLucid Pharmaceuticals** which developed treatments for acute migraines. One treatment is in phase 3 trials. More than 36 million people in the U.S. suffer from migraines.
- Japan-based **Takeda Pharmaceutical Co. Ltd.** Is paying \$5.2b for **Ariad Pharmaceuticals Inc.**, a developer of small-molecule oncology therapies for leukemia and lung cancer. Takeda's top-selling blood cancer drug Velcade is expected to face generic competition this year and its other key products will go off patent from 2020.

The Continued Shift to Point-of Care Diagnostics

- **Abbott Laboratories** is paying \$5.3b for **Alere Inc.**, a \$2.5b provider of point-of-care diagnostics and services for infectious disease, cardiometabolic disease, and toxicology. The deal will end a protracted takeover process between the companies. In an attempt to satisfy anti-trust issues, Abbott is making two divestitures, contingent on closing the Alere deal. **Quidel Corporation** agreed to pay \$400m for **Alere's triage MeterPro**

cardiovascular and toxicology assets and *the B-type natriuretic peptide (BNP) assay business* run on Beckman Coulter analyzers. And *Siemens Healthineers* has agreed to buy *Epocal*, another Alere subsidiary, which provides handheld point-of-care wireless blood diagnostic systems.

Vertical Integrations

- To control more of the supply chain, *Thermo Fisher Scientific Inc.* is buying *Patheon NV*, a Netherlands-based producer of active pharmaceutical ingredients and outsourced development and manufacturing services. Deal price -- \$7.2b.
- To gain exposure to customer markets, *Avantor Performance Materials Holdings S.A.* (an ultra-high quality materials supplier) is paying \$6.4b for *VWR International, Inc.*, a provider of laboratory products.

Consolidations Among Medical Device Providers

- *Abbott Laboratories* closed on its acquisition of *St. Jude Medical Inc.* St. Jude's strong positions in fast-growing areas such as atrial fibrillation, heart failure, structural heart and chronic pain complement Abbott's leading positions in coronary interventions and mitral valve disease. The combined annual sales area about \$8.7b.
- *Becton, Dickinson and Company* is paying \$24b for *C. R. Bard, Inc.*, adding vascular, urology, oncology and surgical specialty products to BD's diabetes care, anesthesia and diagnostics business. A few years ago, BD paid \$12.2b for *Carefusion*.

- *Cardinal Health* paid \$6.3b for *The Patient Care, Deep Vein Thrombosis and Nutritional Insufficiency Businesses of Medtronic plc*, which includes numerous industry-leading medical supply brands acquired from Covidien, such as Curity, Kendall, Dover, Argyle and Kangaroo.
- *Integra LifeSciences* paid \$1.05b for *The Codman Neurosurgery Business of Johnson & Johnson*, enhancing Integra's neurosurgery platform. Integra also paid \$204m for *Derma Sciences* to expand its woundcare portfolio.

Reflecting Worldwide Demographics, Ophthalmics Remains a Key Focal Area

- *Johnson & Johnson* bought *Abbott Medical Optics (AMO)* and rebranded it J&J Vision. AMO adds ophthalmics products in key growth areas: cataract surgery, laser refractive surgery and consumer eye health. Together with its contact lens business, J&J seeks to be world leader in eye health. Deal value -- \$4.3b.

Aesthetic Continues to be an Important Growth Market

- *Hologic, Inc.* paid \$1.65b for *Cynosure, Inc.*, which makes laser and light-based aesthetic equipment for non-invasive body contouring, hair removal, skin revitalization and women's health.
- *Allergan* is paying \$2.5b for *ZELTIQ Aesthetics, Inc.*, a \$324m developer of non-surgical technologies for freezing fat cells and removing them without affecting surrounding tissue.

- **Apax Partners** is paying \$397m for Israel-based **Syneron Medical**, which has products for body contouring, hair removal, wrinkle reduction, tattoo removal, otherwise improving the skin's appearance.

New Wireless Monitoring Devices Taking Hold

- **BioTelemetry, Inc.** paid \$261.6m for Switzerland-based **LifeWatch AG**, which provides wireless services to detect and monitor arrhythmia and other cardiac conditions of patients in the U.S., Canada, Europe and Asia.

Reaching Patients in their Homes

- **Owens & Minor** is buying **Bryam Healthcare**, a distributor of medical supplies sold directly to patients and home health agencies. This \$380m deal is part of a larger trend of manufacturers and distributors seeking to access homecare markets.

Traditional Insurers Extend into Direct Medical Services

- **UnitedHealth Group** is paying \$2.3b for **Surgical Care Affiliates**, a chain of outpatient surgery centers. The deal continues UnitedHealth's evolution from a traditional insurer to a diversified health services company.

Performance of Leading Healthcare Companies (as of August 1, 2017)

| Sector | Company | Market Cap (millions) | EV (millions) | EV/ EBITDA | EV/ SALES | 52 WK Perf | Revenue (millions) | Revenue Growth | Gross Margin |
|---------------|---------------------|--------------------------|------------------|---------------|--------------|---------------|-----------------------|-------------------|-----------------|
| Biopharm | GlaxoSmithKline | \$99,636 | \$125,552 | 12.5x | 3.3x | -10.5% | \$38,000 | 2.7% | 65.8% |
| | Merck & Co. | \$174,722 | \$189,228 | 15.6x | 4.8x | 8.9% | \$40,000 | 2.1% | 77.1% |
| | Novartis | \$201,394 | \$190,651 | 12.8x | 4.0x | 2.6% | \$48,000 | 0.4% | 64.3% |
| | Pfizer | \$197,894 | \$238,191 | 11.9x | 4.5x | -11.1% | \$53,000 | 3.1% | 69.6% |
| Diagnostics | Quest Diagnostics | \$14,820 | \$19,101 | 12.6x | 2.5x | 25.6% | \$7,590 | 1.2% | 38.4% |
| | Danaher Corporation | \$56,564 | \$70,400 | 18.0x | 4.0x | 0.0% | \$17,000 | -21.1% | 55.2% |
| | Hologic | \$12,379 | \$14,338 | 14.3x | 5.0x | 13.4% | \$2,890 | 3.9% | 52.4% |
| | Qiagen | \$7,418 | \$7,603 | 22.2x | 5.6x | 18.0% | \$1,360 | 5.1% | 61.3% |
| | Thermo Fisher | \$68,671 | \$76,871 | 15.8x | 4.0x | 10.0% | \$19,000 | 9.1% | 45.4% |
| Distribution | Cardinal Health | \$24,405 | \$30,162 | 9.3x | 0.2x | -6.2% | \$128,000 | 9.1% | 4.8% |
| | Henry Schein | \$14,455 | \$15,641 | 15.6x | 1.3x | 1.1% | \$12,000 | 8.3% | 27.8% |
| | Mckesson | \$34,228 | \$42,260 | 10.3x | 0.2x | -15.7% | \$200,000 | 3.5% | 5.2% |
| Diversified | Abbott | \$85,341 | \$92,359 | 21.0x | 3.9x | 8.6% | \$24,000 | 14.8% | 57.0% |
| | Johnson & Johnson | \$357,525 | \$336,100 | 13.3x | 4.6x | 5.8% | \$73,000 | 2.3% | 73.4% |
| Healthcare IT | athenahealth, Inc. | \$5,510 | \$5,901 | 30.1x | 5.1x | 7.6% | \$1,150 | 13.8% | 51.6% |
| | Cerner | \$21,264 | \$22,367 | 14.7x | 4.5x | 3.5% | \$4,990 | 7.2% | 78.7% |
| | Premier, Inc. | \$1,806 | \$4,565 | 11.9x | 3.4x | 7.3% | \$1,350 | 20.0% | 51.3% |

Performance of Leading Healthcare Companies (as of August 1, 2017) ... continued

| Sector | Company | Market Cap (millions) | EV (millions) | EV/ EBITDA | EV/ SALES | 52 WK Perf | Revenue (millions) | Revenue Growth | Gross Margin |
|----------------|---------------------------|--------------------------|------------------|---------------|--------------|---------------|-----------------------|-------------------|-----------------|
| Med Devices | Becton, Dickinson and Co. | \$45,789 | \$49,715 | 15.2x | 4.0x | 13.9% | \$12,000 | 0.7% | 48.6% |
| | Boston Scientific | \$36,453 | \$44,201 | 21.1x | 5.1x | 9.0% | \$8,710 | 9.5% | 73.3% |
| | Edwards Lifesciences | \$24,165 | \$25,389 | 24.3x | 7.9x | 0.8% | \$3,230 | 17.8% | 74.1% |
| | Integra LifeSciences | \$3,755 | \$5,030 | 20.9x | 4.8x | 17.4% | \$1,050 | 9.8% | 65.3% |
| | Intuitive Surgical | \$34,566 | \$34,095 | 31.7x | 11.9x | 35.2% | \$2,870 | 13.4% | 69.7% |
| | Medtronic | \$114,945 | \$134,569 | 14.2x | 4.5x | -4.6% | \$30,000 | 3.0% | 62.1% |
| | Stryker | \$54,981 | \$55,554 | 17.3x | 4.7x | 25.7% | \$12,000 | 14.2% | 63.2% |
| | Zimmer Biomet | \$24,412 | \$36,389 | 13.3x | 4.7x | -7.4% | \$7,780 | 3.2% | 76.5% |
| Payor/Benefits | Aetna, Inc. | \$51,185 | \$53,352 | 9.3x | 0.9x | 34.8% | \$63,000 | 2.7% | 26.8% |
| | Express Scripts | \$37,179 | \$50,024 | 6.9x | 0.5x | -17.8% | \$100,000 | -1.1% | 8.6% |
| | Humana, Inc. | \$33,366 | \$35,939 | 15.8x | 0.7x | 35.1% | \$54,000 | 0.2% | 17.3% |
| | UnitedHealth | \$184,840 | \$216,232 | 13.9x | 1.1x | 33.7% | \$193,000 | 9.4% | 35.3% |
| Services | Fresenius Medical Care | \$28,870 | \$35,307 | 10.3x | 2.0x | 3.1% | \$18,000 | 10.1% | 33.1% |

Top Deals of H1 2017 > \$100m in Transaction Value (announced or closed)

| Sector | TransValue (millions) | Acquiror | Target | Target Sales (millions) | Target EBITDA (millions) | Sales Multiple | EBITDA Multiple | |
|--------------------|-----------------------------------|--|--|-------------------------|--------------------------|----------------|-----------------|--------|
| Biopharmaceuticals | \$30,000 | Johnson & Johnson | Actelion, Ltd. | \$2,280 | \$872 | 13.16x | 34.40x | |
| | \$5,200 | Takeda Pharmaceutical Co. Ltd. | Ariad Pharmaceuticals Inc | - | - | - | - | |
| | \$960 | Eli Lilly and Company | CoLucid Pharmaceuticals, Inc. | - | - | - | - | |
| | \$820 | Sanpower Group Co., Ltd. | Dendreon Corporation | - | - | - | - | |
| | \$700 | AGIC Capital | The Ritedose Corporation | - | - | - | - | |
| | \$400 | Bioverativ Inc. | True North Therapeutics, Inc. | - | - | - | - | |
| | \$342 | Merus Labs International Inc. | Norgine B.V. | - | - | - | - | |
| | \$320 | Sartorius AG | Essen BioScience Inc. | \$60 | - | 5.33x | - | |
| | \$209 | Gurnet Point L.P. | Innocoll Holdings plc | \$4 | - | 47.83x | - | |
| | \$203 | Piramal Critical Care Inc. | Intrathecal Therapy business of Mallinckrodt PLC | \$45 | - | 4.55x | - | |
| | \$145 | Horizon Pharma plc | River Vision Development Corp. | - | - | - | - | |
| | \$1,100 | McKesson Corporation | CoverMyMeds | - | - | - | - | |
| | Data Management/ Healthcare IT | \$262 | BioTelemetry, Inc | LifeWatch AG | \$114 | \$13 | 2.30x | 20.28x |
| Diagnostics | | \$7,200 | Thermo Fisher Scientific Inc. | Patheon NV | \$1,900 | \$344 | 3.79x | 20.95x |
| | \$6,400 | Avantor Performance Materials Holdings S.A | VWR International, Inc. | \$4,550 | \$480 | 1.41x | 13.32x | |
| | \$5,800 | Abbott Laboratories | Alere Inc. | \$2,500 | \$552 | 2.32x | 10.51x | |
| | \$4,600 | INC Research Holdings, Inc. | inVentiv Health, Inc. | \$2,300 | \$350 | 2.00x | 13.14x | |
| | \$1,850 | Grifols, S.A. | The Blood Screening Business of Hologic, Inc. | \$226 | \$160 | 8.19x | 11.56x | |
| | \$1,300 | PerkinElmer, Inc. | EUROIMMUN Medical Laboratory Diagnostics AG | \$310 | - | 4.19x | - | |
| | \$380 | Werfen Life Group SAU and its subsidiary Instrument Laboratory | Accriva Diagnostics Holdings, Inc. | \$94 | - | 4.04x | - | |
| | \$330 | Hill-Rom Holdings, Inc. | Mortara Instrument, Inc. | \$115 | - | 2.87x | - | |
| | Distribution | \$380 | Owens & Minor | Byram Healthcare | \$450 | - | 0.84x | - |

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Top Deals of H1 2017 > \$100m in Transaction Value (announced or closed) ... continued

| Sector | TransValue (millions) | Acquiror | Target | Target Sales (millions) | Target EBITDA (millions) | Sales Multiple | EBITDA Multiple | |
|-----------------|--------------------------|---|--|----------------------------|-----------------------------|-------------------|--------------------|--------|
| Medical Devices | \$25,000 | Abbott Laboratories | St. Jude Medical Inc. | \$5,400 | \$1,600 | 4.63x | 15.63x | |
| | \$24,000 | Becton, Dickinson and Company | C. R. Bard, Inc. | \$3,700 | \$1,150 | 6.49x | 20.87x | |
| | \$6,100 | Cardinal Health, Inc. | The Patient Care, Deep Vein Thrombosis and Nutritional Insufficiency businesses of Medtronic plc | \$2,300 | - | 2.65x | - | |
| | \$4,325 | Johnson & Johnson | Abbott Medical Optics Inc. (AMO) | \$1,100 | - | 3.93x | - | |
| | \$2,900 | Allergan Plc | LifeCell Corporation | \$450 | \$180 | 6.44x | 16.11x | |
| | \$2,800 | Svenska Cellulosa Aktiebolaget | BSN Medical GmbH/Svenska Cellulosa AB | \$874 | \$210 | 3.20x | 13.33x | |
| | \$2,480 | Allergan Plc | ZELTIQ Aesthetics, Inc. | \$324 | \$2 | 7.65x | 1278.35x | |
| | \$2,136 | Koninklijke Philips N.V. | The Spectranetics Corp. | - | - | - | - | |
| | \$1,650 | Hologic, Inc. | Cynosure, Inc. | \$434 | \$50 | 3.81x | 32.97x | |
| | \$1,045 | Integra LifeSciences Holdings Corporation | The Codman Neurosurgery Business of Johnson & Johnson | \$370 | \$111 | 2.82x | 9.40x | |
| | \$1,000 | Teleflex Inc. | Vascular Solutions, Inc. | \$160 | \$22 | 6.25x | 46.19x | |
| | \$701 | Stryker Corporation | Novadaq Technologies Inc. | \$83 | - | 8.40x | - | |
| | \$435 | Boston Scientific, Inc. | Symetis SA | \$40 | - | 10.88x | - | |
| | \$397 | Apax Partners Holdings Ltd. | Syneron Medical Ltd. | \$298 | \$17 | 1.33x | 23.77x | |
| | \$276 | Varex Imaging Corporation | The Medical Imaging business of PerkinElmer, Inc. | \$140 | - | 1.97x | - | |
| | \$204 | Integra LifeSciences Holdings Corporation | Derma Sciences, Inc. | \$89 | - | 2.30x | - | |
| | \$174 | Terumo Corporation | Bolton Medical, Inc. | \$50 | - | 3.47x | - | |
| | \$115 | Novanta Inc. | World of Medicine GmbH | \$120 | - | 0.96x | - | |
| | Medical Services | \$2,300 | UnitedHealth Group | Surgical Care Affiliates | \$1,288 | \$192 | 1.79x | 11.96x |
| | | \$440 | Teladoc, Inc. | Best Doctors, Inc. | \$92 | - | 4.77x | - |

M&A Deal-by-Deal Analysis—Q2 2017 (announced or closed)

The information contained in the table below was derived from publicly available sources. Transaction analysis is inferential and not intended to be relied upon as pronouncements by the transaction participants or for any other reason. Transactions are pending or closed.

| Sector | Acquiror | Target | Analysis |
|--------------------|--|--|---|
| Biopharmaceuticals | AGIC Capital , a Hong Kong-based private equity firm. | The Ritedose Corporation , a developer of systems for blow-fill-seal (BFS) small fill volume pharmaceutical unit doses. | Ritedose specializes in a manufacturing process for liquid-filled containers that is known for lessening the likelihood of accidental contamination. The demand for such technology is increasing in China and Japan. AGIC's investment will be used in developing new products and increasing capacity. Deal value -- between \$600-\$800m. Olympus Partners, another PE firm, was the seller. |
| Biopharmaceuticals | Bioverativ Inc. (NASDAQ: BIVV) , a \$954.8m biotech company focused on hemophilia and other blood disorders. | True North Therapeutics, Inc. , a clinical-stage rare disease biotechnology company. | As part of the acquisition, Bioverativ will obtain worldwide rights to True North's lead candidate, TNT009, a first-in-class monoclonal antibody in development to treat cold agglutinin disease (CAD). CAD is a rare and chronic hemolytic condition that often leads to severe anemia, requiring numerous transfusions, and can result in life-threatening thrombotic events. There are no approved therapies for CAD, which occurs in approximately 16 people per million globally, including an estimated 5,000 people in the U.S. Deal value -- \$400m plus \$425m in earnouts. |
| Biopharmaceuticals | GE Healthcare Ltd. (NYSE:GE) , a unit of General Electric Company providing medical imaging and information technologies. | Asymptote Limited , a U.K.-based maker of products for preserving cell viability during cryogenic processing of cellular therapies. | Strengthens GE Healthcare's cell therapy portfolio with a suite of technologies for the cryopreservation of cellular materials. Asymptote's integrated suite of cryochain hardware, software and consumables are designed to maintain the potency of cellular therapies enabling ultra-low temperature freezing during production, all the way to thawing at the clinic prior to administering to patients. During the past year, GE has announced significant investments in the field of cell therapy and regenerative medicine, including the acquisition of Biosafe SA, a supplier of integrated cell bioprocessing systems, Vitruvian Networks, a GE Ventures and Mayo Clinic collaboration, providing cloud-based software systems and manufacturing services for cell and gene therapies and BridGE@CCRM Cell Therapy Centre of Excellence, a \$31.5m co-investment with the Canadian Government to promote new technologies for the production of cellular therapies in Toronto. Terms not announced. |

| Sector | Acquiror | Target | Analysis |
|--------------------|---|---|---|
| Biopharmaceuticals | Gurnet Point L.P. , a healthcare investment fund. | Innocoll Holdings plc , a \$4.37m Ireland-based manufacturer of collagen-based pharmaceutical products and devices. | Innocoll leveraged its collagen-based technology to complete two Phase 3 studies for XARACOLL, a late-stage surgically implantable and bioresorbable collagen matrix. XARACOLL provides sustained post-operative pain relief through controlled delivery of bupivacaine at the surgical site. This acquisition will give Innocoll access to the financial resources it needs to pursue its goals of bringing XARACOLL through its development to commercialization, and address important unmet medical needs in the post-operative pain market. Deal value -- \$209m on sales of \$4.37m (47.8x). |
| Biopharmaceuticals | Horizon Pharma plc (NASDAQ:HZNP) , an acquisition-minded biopharmaceutical company. | River Vision Development Corp. | River is developing teprotumumab (RV001), a fully human monoclonal antibody (mAb) currently in development for Thyroid Eye Disease (TED), a rare, autoimmune inflammatory disorder. A pivotal study will begin in the latter half of 2017. With no approved medicines to treat TED, there is a significant unmet need among approximately 10,000 patients in the U.S. with moderate to severe disease. Deal value -- \$145m plus milestone payments. |
| Biopharmaceuticals | Johnson & Johnson (NYSE: JNJ) , a \$72b manufacturer of pharmaceuticals, medical devices and consumer healthcare products. | Actelion, Ltd. , a Swiss biotech company focused on the development of treatments for pulmonary arterial hypertension (PAH). | Gives J&J access to high-price, high-margin drugs for rare diseases, helping it diversify its drug portfolio as its biggest product, Remicade for arthritis, faces cheaper competition. The deal also includes a spin-off of Actelion's research and development pipeline. Actelion started out with two drugs that had been developed inside Roche, one of which went on to become blockbuster pulmonary arterial hypertension drug Tracleer. The deal highlights the hefty price big pharmaceutical companies will pay to replenish their drug pipeline as their top sellers lose patent protection and face competition. Deal value -- \$30b on sales of \$2.28b (13.15x) and EBITDA (34.1x) |
| Biopharmaceuticals | Merus Labs International Inc. NASDAQ: MSLI , a \$76.4m specialty pharmaceutical company focusing on oncology, thromboembolic diseases and overactive bladder syndrome. | Norgine B.V. , a specialty pharmaceutical company focusing on gastroenterology, incontinence, hepatology and critical and supportive care. | Strengthens Merus' position in the European specialty pharma market. Merus is focused on acquiring and optimizing legacy and growth products. Norgine is a leading European specialist pharmaceutical company with a direct presence in all major European markets. It employs over 1,000 people across its commercial, development and manufacturing operations and manages all aspects of product development, production, marketing, sales and supply. Deal value -- \$342m on revenue of \$329.5m (1.0x). |

| Sector | Acquiror | Target | Analysis |
|-----------------------------------|---|--|--|
| Biopharmaceuticals | Savara Inc. (NASDAQ: SVRA) , a clinical-stage specialty pharmaceutical company focused on serious or life-threatening rare respiratory diseases. | Mast Therapeutics, Inc. , a clinical-stage pharmaceutical company. | This merged company features three inhaled product candidates, each in advanced stages of clinical development. The deal makes Savara a public company, serving rare and debilitating lung diseases. |
| Biopharmaceuticals | Serum Institute of India Ltd , an India-based manufacturer of immunobiological drugs. | Nanotherapeutics Inc. , a Czech-based developer of biopharmaceutical products for acute pain. | Serum, a major vaccine manufacturer by number of doses, adds to its injectable polio capacity, increasing it by 4 times to a total of 200 million doses by 2019. This makes SII the largest injectable non-oral polio vaccine manufacturer in the world. It plans to add around 200 employees in the next 2-3 years in the Czech Republic. Deal value -- \$78.2m. |
| Biopharmaceuticals | Sygnis AG , a German-based developer of tools for molecular biology. | Innova Biosciences Ltd. , a UK-based developer of antibody labeling and bioconjugation kits for the life science sector. | Innova develops labelling reagents that are marketed worldwide by its direct salesforce as well as through a distribution network. Innova adds a complementary portfolio to the SYGNIS genomics and proteomics linesw. The ability to label molecules for detection, purification or quantification is a common challenge in modern molecular biology. Deal terms -- \$9.0m plus shares of Syngis. |
| Data Management/ Healthcare IT | athenahealth, Inc. (NASDAQ: ATHN) , a \$1.1b healthcare IT company offering billing and clinical-related services. | Praxify Technologies, Inc. , a developer of electronic health record (EHR) applications for physicians and patients. | Enables athenahealth to advance its mobile capabilities with an EHR system to drive productivity, portability, and improved decision support. Deal value -- \$63.0m. |
| Data Management/ Healthcare IT | BioTelemetry, Inc. (NASDAQ:BEAT) , a \$198.4m developer of cardiac monitoring device and provider of centralized cardiac core laboratory services. | LifeWatch AG , a \$113.8m Swiss-based provider of digital health systems and wireless remote diagnostic patient monitoring. | LifeWatch provides digital health systems and wireless remote diagnostic patient monitoring services in the U.S., Canada, Europe, and Asia. It offers mobile cardiac telemetry solutions which detect, record, and wirelessly transmit asymptomatic and symptomatic arrhythmia and other cardiac conditions. Headquartered in Switzerland with US operations based in Rosemont, Illinois, LifeWatch is one of the most successful suppliers of remote cardiac monitoring solutions. Both companies offer innovative remote cardiac monitoring solutions, the combination of which creates one of the most comprehensive connected health platforms in the world. |

| Sector | Acquiror | Target | Analysis |
|-----------------------------------|--|---|--|
| | | | Significant revenue and cost synergies are expected. Deal value -- \$261.6m, on revenue of \$113.8m (2.3x) and EBITDA of \$12.9m (20.3x) |
| Data Management/ Healthcare IT | McKesson Corporation (NYSE:MCK) , a \$189.1b medical device and pharmaceutical company. | CoverMyMeds , a developer of electronic prior authorization (ePA) solutions | CoverMyMeds' products streamline the prior authorization (PA) process for 47,000 pharmacies, 700,000 prescribers and the nation's largest pharmacy benefit managers (PBMs) and payers. The deal supports McKesson's commitment to provide comprehensive solutions that drive value across the healthcare continuum and secure patients' access to their prescribed drugs. Deal value -- \$1.1b, \$0.9b net of incremental cash benefits. |
| Data Management/ Healthcare IT | NextGen Healthcare Information Systems , a provider of software and services for medical and dental group practices. | Entrada, Inc. , a provider of integrated mobile solutions | Entrada provides tools for transferring dictated doctors' notes to electronic medical records and improving clinical workflows. NextGen Healthcare can assist Entrada in unlocking the productivity potential for caregivers, ultimately helping them gain time to focus on their patients. Deal value -- \$34m on ~\$12m of revenue. |
| Data Management/ Healthcare IT | Olympus Corporation of the Americas , a large Japan based manufacturer of medical optical products. | Image Stream Medical, Inc. , a developer of collaborative imaging solutions. | Allows Olympus, the largest endoscope provider, to create an integrated visualization system, especially in regard to minimally invasive surgeries. Image Stream Medical provides end-to-end workflow solutions for many clinical specialties and an approach to IT backbone technology which unifies separate clinical areas allowing complete enterprise-wide access to critical data and media. Deal value -- \$87m on sales of \$31m (2.8x). |
| Data Management/ Healthcare IT | Omniceil, Inc. (NASDAQ: OMCL) , a \$692.6m provider of automation analytics software for medication and healthcare supply management. | InPharmics Hospital Pharmacy Consulting , a services company that provides advanced pharmacy informatics solutions to hospital pharmacies. | The InPharmics systems add clinical and compliance analytics to Omnicell's Performance Center offering, strengthening Omnicell as a leader in medication management. Terms not announced. |
| Data Management/ Healthcare IT | Simulations Plus, Inc. (NASDAQ: SLP) , a \$21.09m provider of simulation and modeling software. | DILIsym Services, Inc. , a provider of drug-induced liver injury simulation. | Drug-induced liver injury can result in failed clinical trials and in drugs being withdrawn from the market. DILIsym helps identify new drug compounds that may produce DILI as early as possible in the development cycle in and focus resources on compounds more likely to be successful. Terms not announced. DILIsym's revenue is~ \$3.0m. |

| Sector | Acquiror | Target | Analysis |
|-----------------------------------|--|--|--|
| Data Management/ Healthcare IT | Terarecon, Inc. , a developer of advanced visualization and enterprise medical image viewing solutions. | McCoy Medical Technologies , a developer platform and API interface for algorithm developers. | McCoy facilitates the streamlined distribution and hospital implementation of evidence-based practices and trained machine learning algorithms via a vendor neutral distribution platform. The McCoy platform allows users anywhere to access cloud-based algorithms without requiring access to the algorithm code or training data to protect developer intellectual property. Terms not announced. |
| Dental | Young Innovations, Inc. , a manufacturer and distributor of dental supplies and equipment. | American Eagle Instruments, Inc. , a manufacturer of dental hand-held instruments. | Builds on Young's foundation in preventive dentistry products. Young is aggressively pursuing an acquisition strategy to drive future growth in core categories. Terms not announced. Young is a portfolio company of Linden Capital Partners. |
| Diagnostics | Abbott Laboratories (NYSE: ABT) , a \$20.4b global developer of diagnostics, medical devices, nutritionals and branded generic pharmaceuticals. | Alere Inc. , a \$2.5b provider of point-of-care diagnostics and services for infectious disease, cardiometabolic disease, and toxicology. | Strengthens and grows Abbott's diagnostics business in key international markets and provides entry into new channels, such as doctor's offices, clinics, pharmacies and at-home testing. The deal also enables Abbott to serve a broader customer base and accelerate innovation in point of care (POC) diagnostics. The deal reflects a lower valuation than originally agreed upon and will end a drawn out and contentious takeover process. To satisfy anti-trust issues, Abbott will divest certain POC assets to Quidel Corporation and Siemens Healthineers, pending closing of the Alere deal. Revised deal terms of Abbot-Alere deal-- \$5.3b, on revenue \$2.5b (2.12x) and EBITDA \$552m (9.6x). |
| Diagnostics | Avantor Performance Materials Holdings S.A. , a global supplier of ultra-high-purity materials for the life sciences and advanced technology markets. | VWR International, Inc. , a \$4.5b provider of laboratory products, services and solutions. | Enables Avantor to become a major consumables-focused solutions and services provider to life sciences and advanced technologies industries. It also complements Avantor's ultra-high-purity materials and customized solutions. The deal follows three acquisitions by VWR: MESM, a provider of laboratory and medical equipment and ancillary supplies to clinical trials; EPL Archives, a global biorepository services organization, and Seastar Chemicals, a manufacturer of high-purity reagents used in the global research, laboratory, and microelectronics industries. Deal value -- \$6.4b on sales of \$4.55b (1.4x) and EBITDA \$480.4m (13.3x). |

| Sector | Acquiror | Target | Analysis |
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| Diagnostics | Diagnostica Stago Inc. , a France-based manufacturer of automated systems for blood analysis in coagulation. | HemoSonics LLC , a developer of innovative Point-of-Care testing solutions. | HemoSonics develops point-of-care (POC) diagnostic platforms to manage critical bleeding. HemoSonics' SEER technology (Sonic Estimation of Elasticity via Resonance) and its associated Quantra™ Hemostasis Analyzer strengthens Stago's haemostasis testing capabilities and add POC offerings. Stago is a leading player in in vitro diagnostics for Thrombosis and Haemostasis, it develops automated systems for blood analysis in coagulation. Terms not announced. |
| Diagnostics | INC Research Holdings, Inc. (Nasdaq:INCR) , a \$999.17m global CRO providing services for the biopharmaceutical and medical device industries. | inVentiv Health, Inc. , a global CRO and Contract Commercial Organization. | INC caters to small and mid-sized pharma companies, while InVentiv works with larger firms, including the top 20 biopharmaceutical companies. The combined services include running clinical trials to advising on drug pricing. The deal also boosts INC's ability to produce commercialization data and insights to help guide its drug development and marketing efforts. The new entity will have an enterprise value of about \$7.4b. The deal reflects the major realignment toward outsourced commercialization services. Deal value -- \$4.6b on estimated revenue of \$2.3b of revenue (2.0x) and \$350m of EBITDA (13.1x). |
| Diagnostics | PerkinElmer, Inc. (NYSE:PKI) , a \$2.2b provider of technology, services and solutions to the diagnostics, research, environmental and industrial markets. | EUROIMMUN Medical Laboratory Diagnostics AG , a Germany-based provider of test systems and automation solutions for medical laboratory diagnostics. | EUROIMMUN adds a comprehensive diagnostics portfolio which includes testing systems for reproductive health; autoimmune, infectious disease and allergy testing; gene analyses; and genomics offerings for oncology and other molecular tests. The combination expands PerkinElmer's reach into autoimmune and allergy diagnostic markets, while offering new infectious disease capabilities to customers in China. As a market leader in the U.S. for reproductive health, PerkinElmer will have the opportunity to drive EUROIMMUN's solutions into this well-established market. In 2016, EUROIMMUN generated sales in more than 130 countries, with ~45% of revenues in China, 30% in Europe, Middle East & Africa, 5% in the Americas and 20% in Rest of World. Deal value -- \$1.3b on revenue of \$310m (4.19x), which has grown by 19% on average over the past few years. |
| Diagnostics | Sysmex Corporation , a Japan based developer of inte- | Oxford Gene Technology , a provider of genetics research and biomarker solutions. | Sysmex gains access to OGT's genetic analysis technologies and expertise in the cytogenetics market with FISH (fluorescence in situ hybridisation) and aCGH (array comparative genomic hybridization) products. It will also strengthen its technology base in molecular genetics through OGT's NGS |

| Sector | Acquiror | Target | Analysis |
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| | grated instruments, reagents and software used in in vitro diagnostics. | | (next generation sequencing) reagent development capabilities. The deal reinforces Sysmex's initiatives towards personalized medicine. Oxford's revenue is ~\$25.2m. Terms not announced. |
| Diagnostics | Thermo Fisher Scientific Inc. (NYSE: TMO) , a \$18.27b developer of diagnostic instruments, reagents, consumables and specialty laboratory products. | Patheon NV , a Dutch-based provider of active pharmaceutical ingredients and finished drug product services. | Patheon is a provider of commercial manufacturing outsourcing services and outsourced pharmaceutical development services. It operates 20 commercial-scale production facilities around the world. Having biologics development and manufacturing capabilities, as well as bioproduction technologies in one company, will allow Thermo Fisher to offer a more comprehensive portfolio to gain share with these customers. Deal value -- \$7.2b on revenue (3.8x) of \$1.9b and EBITDA of \$343.6m (21.0x). Thermo Fisher expects to realize synergies of ~\$120m within three years. In the past year Thermo Fisher paid \$4.2b to acquire FEI Co. (electron microscopy technology) and \$.3b for Affymetrix (genetic analysis). |
| Distribution | Henry Schein, Inc. (Nasdaq: HSIC) , a \$9.7b provider of healthcare products and services to office-based physician, dental and animal health practices. | Southern Anesthesia + Surgical (SAS) , a distributor of anesthesia and surgical supplies to oral surgeons, dental anesthesiologists, and periodontists. | SAS offers controlled and non-controlled pharmaceuticals, as well as surgical supplies, to some 11,500 customers. in ACE focuses on dental-surgical advancements and is a provider of bone regenerative products and compatible dental implant systems. With 2016 revenue of \$72m, SAS has warehouse and customer service facilities in Reno, Nevada, and Tulsa, Oklahoma and serves all 50 states. Terms not announced. |
| Distribution | Medical Specialty Distributors, Inc. (MSD) , a provider of supply chain, medical device management and technology solutions for the post-acute care market. | Attentus Medical Sales, Inc. , an innovative provider of medical, pharmaceutical cold chain, and USP 797 & 800 compliance products. | Attentus complements MSD's existing offerings and expands its reach and capabilities in the post-acute care market. Attentus pioneered a new distribution model serving compounding, long-term care, specialty, and home infusion pharmacies. It provides comprehensive solutions employing technical product and clinical expertise, onsite training, and collaborative R&D custom products, among other features. It actively assists compounding pharmacies in complying with an increasing rigorous regulatory scheme. Major national companies in each sales channel are customers. The Walden Group represented Attentus and arranged for the transaction. Terms not announced. MSD is a portfolio company of New Mountain Capital. |

| Sector | Acquiror | Target | Analysis |
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| Distribution | Owens & Minor (NYSE: OMI) , a \$9.7b supplier of devices and healthcare logistics services. | Byram Healthcare , a distributor of medical supplies sold directly to patients and home health agencies. | Expanding across the continuum of care -- here into homecare -- is a strategic imperative for Owens & Minor. The deal expands its reach beyond the hospital setting all the way to the patient's home. Byram's expertise in managing third party reimbursement and working with insurers and federal health care programs brings an important new capability to Owens & Minor. Byram sells medical supplies nationwide for wound care, urology, diabetes and incontinence. This deal is the latest in the popular home medical supplies space. In 2016, Coloplast acquired Comfort Medical for \$160m, and Domtar acquired Home Delivery Incontinence Supplies for \$45m. In 2015, C.R. Bard acquired Liberator Medical for \$181m. C.R. Bard was just acquired in April 2017 by Becton Dickinson for \$24b. Deal value -- \$380m on sales of \$450.0m (084x). |
| Medical Devices | Allergan Plc (NYSE: AGN) , a \$16.7b provider of medical aesthetics, biosimilars, and over-the-counter pharmaceutical products. | ZELTIQ Aesthetics, Inc. , a \$324m developer of non-invasive products for the selective reduction of fat. | Zeltiq developed non-surgical technologies for freezing fat cells and removing them without affecting surrounding tissue. Zeltiq's CoolSculpting is FDA-cleared to affect appearance through lipolysis or reduction of unwanted fat by gently cooling targeted fat cells in the body to induce a natural, controlled elimination of fat cells without affecting surrounding tissue. Insurers do not cover Zeltiq's CoolSculpting System. Allergan has been targeting "cash-pay" businesses, which is similar to some of its Botox sales. Deal value -- \$2.48B on sales of \$324.22m (7.6x) and EBITDA \$1.94m (1.3x) |
| Medical Devices | Allergan Sales LLC , a pharmaceutical company and a wholly-owned subsidiary of Allergan Plc. | Keller Medical, Inc , a medical device company and developer of the Keller Funnel, a clear cone-shaped device that helps surgeons deliver silicone gel implants. | The Keller Funnel was designed by pioneering surgeons to improve breast implantation, and reduce the risks of implant contamination during procedures. The Keller Funnel is used to assist plastic surgeons in breast augmentation and reconstruction procedures by guiding silicone gel implants into the surgical pocket. The Funnel also allows surgeons to use a "no-touch" technique, which may help minimize the introduction of bacteria and foreign material into the surgical pocket. Hundreds of thousands of funnels have been used in breast augmentation or reconstruction procedures to date globally. The deal complements Allergan's plastic surgery and regenerative medicine business. Deal terms not disclosed. |

| Sector | Acquiror | Target | Analysis |
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| Medical Devices | Apax Partners Holdings Ltd. , a private equity firm. | Syneron Medical Ltd. , a \$298m Israel-based manufacturer aesthetic medical products. | Syneron's product range includes body contouring, hair removal, wrinkle reduction, tattoo removal, improving the skin's appearance through the treatment of superficial benign vascular and pigmented lesions, and the treatment of acne, leg veins and cellulite. With offices in North America, France, Germany, Italy, Portugal, Spain, UK, Australia, China, Japan, and Hong Kong and distributors worldwide, products are sold in some 86 countries. This deal follows on Allergan's \$2.5b deal by Zelciq Aesthetics (CoolSculpting body contouring) and Hologic's agreement to spend \$1.7b for Cynosure (body-contouring technologies involving firing lasers at the fat rather than chilling it). Apax intends to further expand Syneron, expecting significant worldwide market growth. Deal value -- \$397m on revenue of \$298.0m (1.3x) and EBITDA of \$16.7m (23.9x). |
| Medical Devices | Avalign Technologies, Inc. , a full-service supplier of surgical implants, instruments, and delivery systems. | Millennium Surgical Corp. , a provider of branded surgical instruments to hospitals and surgery centers for various specialties. | Pioneering a new inside sales approach, Millennium provides surgical instruments to hospitals, surgery centers and other accounts. Utilizing sophisticated web-based marketing tools, electronic cataloging and cross-referencing of virtually all instrument brands, the company has become the "go to" source for "hard to find" specialty products. The deal complements Avalign's instrument business. Avalign is a portfolio company of Arlington Capital. The Walden Group represented Millennium in the transaction. Terms not announced. |
| Medical Devices | Avery Dennison Corporation (NYSE:AVY) , a \$6.17b developer of pressure-sensitive and functional materials and labeling solutions. | Finesse Medical Ltd , an Ireland-based developer of advanced wound care and skin treatment products. | Adds to Avery's growing medical segment. Finesse Medical specializes in wound care and skin treatments, including skin barrier films, protection creams, and silicone and polyurethane foam wound dressings. It is a key supplier to global healthcare-product OEMs and also provides contract manufacturing and product development services. Terms not announced. Finesse's revenue is ~\$16.6m |
| Medical Devices | Beaver-Visitec International, Inc. , a maker of microsurgical blades, cannulas and other products used in ophthalmic surgery. | Malosa Medical Ltd. , a U.K.-based developer of single-use ophthalmic surgical instruments. | BVI was recently acquired by TPG Capital and this is a bolt-on. TPG and others see robust ophthalmic market growth, given the aging population and an increased awareness of eye care globally. Terms not announced. |

| Sector | Acquiror | Target | Analysis |
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| Medical Devices | Becton, Dickinson and Company (NYSE: BDX) , a \$12.42b developer of medical devices, instrument systems, and reagents. | Caesarea Medical Electronics Ltd. , Israeli-based manufacturer of medical infusion delivery products. | Expands BD's infusion portfolio to include ambulatory, home and specialty acute care infusion pumps. CME designs, manufactures and markets a range of compact and portable infusion and syringe pumps, as well as related accessories and disposable administration sets for both homecare and hospital settings. The deal completes the acquisition of the remaining 60% CareFusion, a BD subsidiary, did not buy in 2014. Terms not announced. |
| Medical Devices | Becton, Dickinson and Company (NYSE: BDX) , a \$12.42b developer of medical devices, instrument systems, and reagents. | C. R. Bard, Inc. , a \$3.7b maker of vascular, urology, oncology, and surgical specialty products. | Bard adds vascular, urology, oncology and surgical specialty products to BD's franchises in diagnostics, diabetes care, injection, anesthesia, pharmacy and laboratory automation, medical management and infection prevention. BD also seeks to accelerate its international growth, including in China, where the companies have combined revenue of \$1b. Together the companies have about \$16b in annual revenue and 65,000 employees with a "presence in almost every country around the world". The combined company is projecting annual revenue growth of 5-6% from the 2018 through 2020 fiscal years with earnings growth in the "mid-teens". Coming two years after BD acquired Carefusion for \$12.2b, the C.R. Bard deal continues the consolidation among device companies to gain more leverage, penetration and value-added services vis a vis hospital accounts. After the Carefusion deal, BD divested its respiratory business, forming Vyair Medical as a joint venture with a PE firm. Deal value - \$24b on sales of \$3.7b (8x) and EBITDA \$1.15b (20.86x). |
| Medical Devices | Bigfoot Biomedical, Inc. , a medical device company which focuses on optimizing insulin delivery. | Patients Pending, LTD. , a London-based provider of a daily solutions for people living with diabetes. | Patients Pending makes the Timesulin insulin pen timer cap, and its Bluetooth-enabled insulin pen dose capture technology. The acquisition positions Bigfoot to simultaneously pursue insulin delivery solutions in both the insulin infusion pump and injection spaces. Bigfoot is developing systems that connect components into Class III medical device systems capable of supporting auto-titration for insulin dosing across a variety of glucose sensing and insulin delivery technologies. Terms not announced. |
| Medical Devices | Boston Scientific, Inc. (NYSE: BSX) , a \$8.39 manufacturer of medical device | Symetis SA , a Switzerland-based developer of minimally-invasive transcatheter aortic valve implantation (TAVI) devices. | The Symetis portfolio includes valve systems for treating high-risk patients suffering from severe and symptomatic aortic valve stenosis sold in Europe and elsewhere outside the U.S. Symetis is also developing the ACURATE neo/AS next generation valve system. This Symetis acquisition |

| Sector | Acquiror | Target | Analysis |
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| | products for interventional medical specialties. | | follows the recent acquisition by Boston Scientific of certain Neovasc assets and demonstrates the company's continued focus in the structural heart area. Deal value -- \$435m on revenue of ~\$40m, growing at 55% CAGR since 2012. |
| Medical Devices | Cardinal Health, Inc. (NYSE:CAH) , a \$127.24b pharmaceutical and medical products and services company. | The Patient Care, Deep Vein Thrombosis and Nutritional Insufficiency businesses of Medtronic plc , a \$29.36b maker of devices focused on spine and cardiology. | The target lines encompass 23 product categories including numerous industry-leading brands, such as Curity, Kendall, Dover, Argyle and Kangaroo. The acquisition divests Medtronic's medical supplies portfolio after its \$42.9b acquisition of Covidien Plc in 2014. Cardinal hopes the acquisition will offset competitive pressures in its drug-wholesaling business, where the company is lowering generic-drug prices to maintain market share among independent pharmacy retailers. In 2015, Cardinal Health acquired Cordis from Johnson & Johnson for ~\$2b, adding a portfolio of devices, including catheters, filters and stents. The deal enhances Cardinal Health's medical products business. Deal value - \$6.1b on sales of \$2.3b (2.65x). 70% of the sales are in the U.S. The purchase price does not include cash tax benefits of at least \$100m. By 2020, Cardinal expects \$150m in synergies, annually. |
| Medical Devices | Charlesbank Capital Partners , a private equity investment firm focusing on leveraged buyout transactions involving middle-market companies. | Tecomet, Inc. , a contract manufacturer for medical implant, aerospace and industrial OEMs. | Tecomet's products include orthopedic implants, complex surgical instruments, trauma plates and photochemical etched products for medical device customers. For the aerospace & defense industry, Tecomet makes precision components used in missile and satellite propulsion systems, commercial aviation, vision systems, and infrared applications. Founded in 1964, Tecomet was acquired by Genstar in December 2013. Genstar partnered with management to complete three strategic acquisitions, expanded the company's senior leadership team and quadrupled the company's size. Terms not announced. |
| Medical Devices | CoBe Capital, LLC , a private equity firm. | The Volker business of Hill-Rom Holdings Inc. , a \$2.52b provider of patient care systems, surgical safety equipment and respiratory products. | Germany-based Volker makes hospital and long-term care beds. Its 2016 revenue was \$40m. Volker was a non-core asset of Hill-Rom, which expects to record an after-tax writedown of ~\$30m in connection with the Volker assets and transaction-related costs. Deal terms not announced. |

| Sector | Acquiror | Target | Analysis |
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| Medical Devices | DePuy Synthes Products, Inc. , a major manufacturer of orthopedic products and a subsidiary of Johnson & Johnson. | Surgical Solutions, LLC dba Sentio, LLC , a developer of nerve localization technology for spine surgery. | With Sentio's nerve localization technology, DePuy Synthes will strengthen its spine portfolio in decompression procedures as well as lateral surgery, and build a platform for future innovation in minimally invasive surgery. Nerve localization is important during many spine procedures, including one minimally invasive approach called lateral surgery, where temporary and permanent neurologic complications are reported in 9.4% and 2.5% of patients, respectively. Most technologies on the market today rely on multiple needle electrodes in the patient's arms or legs to locate motor nerves in the cervical and lumbar spine, and generate signals that can be problematic due to anesthesia effects, electrical interference or interpretation challenges. Sentio's platform provides real-time feedback directly to the surgeon on nerve location using adhesive smart-sensors that are applied to the skin. The system can be set up by operating room personnel, does not require a neuromonitoring specialist, and has a minimal footprint in the operating room. Terms not disclosed. |
| Medical Devices | DePuy Synthes Products, Inc. , a major manufacturer of orthopedic products and a subsidiary of Johnson & Johnson. | 3D printing technology of Tissue Regeneration Systems, Inc. , a developer of skeletal reconstruction and bone regeneration technology platform. | Enables DePuy Synthes to create patient-specific, bioresorbable implants with a unique mineral coating intended to support bone healing in patients with orthopedic and craniomaxillofacial deformities and injuries. Terms not disclosed. |
| Medical Devices | Dynatronics Corporation (NASDAQ: DYNT) , a \$32.12m manufacturer of electrotherapy, therapeutic ultrasound, phototherapy, iontophoresis devices and traction therapy equipment. | Hausmann Industries, Inc. , a manufacturer of physical therapy treatment tables and other rehab products. | Hausmann Industries makes laminated treatment tables and wood products which complement Dynatronics' existing line of solid wood and custom design treatment tables. The acquisition also expands Dynatronics' presence in the physical therapy and athletic training space. Pro forma combined sales for Dynatronics and Hausmann for 2015 were ~\$45m. Deal value -- \$10m on sales of \$14.8m (0.67x) and EBITDA of \$1.2m. |
| Medical Devices | Glaukos Corporation (NYSE: GKOS) , a \$114m manufacturer of micro-invasive glaucoma stents (MIGS). | The intraocular pressure (IOP) sensor system assets of DOSE Medical Corporation , a developer of micro-invasive ocular implant designed to measure a patient's intraocular pressure (IOP). | The DOSE Medical IOP sensor system features a micro-invasive ocular implant that is designed to capture and store a glaucoma patient's short-interval IOP measurements over extended periods of time, and transmit data to the patient's physician in order to enhance treatment decisions. The wireless system, which is designed for ab-interno insertion, incorporates a rechargeable battery that may allow the sensor to function for |

| Sector | Acquiror | Target | Analysis |
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| | | | multiple years. The emerging IOP sensor system complements Glaukos' strategy to transform glaucoma therapy with micro-scale device and drug-delivery platforms that can ultimately address a full range of disease state severity. Although still in an early development phase, the system offers future promise as a 24/7 tool for measuring the effects of glaucoma medical and surgical interventions, monitoring patient therapeutic compliance and managing disease progression. Longer-term, Glaukos sees opportunities to build upon the sensor platform with additional diagnostic and IOP management innovations. DOSE Medical was previously a wholly owned subsidiary of Glaukos. In 2010, it was spun-out as a standalone entity separate from Glaukos' go-forward business. In 2015, Deal value -- \$5.5m plus up to \$9.5 in certain development, clinical and regulatory milestones. |
| Medical Devices | Haohai healthcare holdings (BVI) Co., Ltd. , a China-based manufacturer of absorbable biomedical materials. | Contamac Holdings Limited , a UK contact lens and intraocular lens (IOL) materials manufacturing company. | Contamac provides to OEMs contact lens and intraocular lens materials, including silicone hydrogel, gas permeable, hydrophilic lens, and hydrophobic and hydrophilic intraocular lens materials. Presumably, Haohia plans to expand its business in China with IOL manufacturing, as well as with niche IOL makers elsewhere. Deal value -- \$31.7m for a 70% stake, making the company valuation \$45.3m. |
| Medical Devices | IZI Medical Products, LLC , a manufacturer of interventional products. | The vertebroplasty spine line of Cook Medical , a maker of endovascular, critical care medicine, general surgery, and other medical devices. | IZI is a leading provider of high quality medical consumable devices used in radiology, radiation therapy and image guided surgery procedures. The acquired spinal products are commercially marketed under the highly regarded Duro-Ject® Osteo-Site®, Osteo-Force® and Vertefix® brands, consisting of needles, injectors and cements. These products are used in the growing market for treating vertebral compression fractures through a minimally invasive procedure. The deal opens up the spinal market for IZI. Terms not announced. |
| Medical Devices | Koninklijke Philips N.V. (NYSE: PHG; AEX: PHI) , a \$27.1b developer of medical systems, consumer electronics and lighting products. | The Spectranetics Corp. , a maker of disposable vascular intervention, lead management and coronary intervention products. | Strengthens Philips' Image-Guided Therapy Business Group and builds upon Building on Philips's Volcano acquisition in 2015. Spectranetics is a leader in vascular intervention to treat coronary and peripheral artery disease, and in electrophysiology (EP) device lead management for the minimally invasive removal of implanted pacemaker and implantable cardioverter defibrillator (ICD) leads. Its portfolio includes laser atherectomy |

| Sector | Acquiror | Target | Analysis |
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| | | | catheters for treating blockages with laser energy in both coronary and peripheral arteries. Its Stellarex drug-coated balloon is CE-marked and under review by the FDA for premarket approval in the U.S. The drug-coated balloon segment is one of the fastest growing segments in peripheral vascular procedures. Deal value -- \$2.36b on revenue of ~\$300m. |
| Medical Devices | LivaNova PLC (NASDAQ:LIVN) , a \$1.2b n England-based medical device maker focused on cardiac surgery, neuromodulation and cardiac rhythm management. | Caisson Interventional , a developer of mitral valve implantables. | Caisson's transcatheter mitral valve replacement is designed to be delivered across the heart's septum via the femoral vein and can be repositioned or withdrawn before final deployment. LivaNova intends to invest in the clinical studies, regulatory approvals, product enhancements and other steps needed to launch the mitral valve replacement system commercially. Deal value -- \$18m plus \$54m in milestones. LivaNova owned a 49% in Caisson before this deal. |
| Medical Devices | Medtronic plc (NYSE: MDT) , a \$29.3b manufacturer of cardiovascular and spinal products. | QT Vascular Ltd. , a Singapore-based developer of minimally invasive treatments for vascular diseases. | Medtronic is paying for an option to buy QT's non-drug coated Chocolate® PTA. (percutaneous transluminal angioplasty) balloon catheter. The option is exercisable upon achievement of certain milestones. The PTA is designed to deliver optimal results without a permanent implant. Its unique nitinol constraining structure is designed to provide atraumatic dilatation in the treatment of blocked arteries. Deal value -- \$28m. |
| Medical Devices | Merit Medical Systems, Inc. (NASDAQ:MMSI) , a \$547m developer of proprietary devices used primarily in cardiology, radiology and endoscopy. | The Critical Care Platform of Argon Medical Devices, Inc. , a maker of devices for interventional radiology, vascular surgery and interventional cardiology. | Broadens Merit's product offering, expands its geographic presence, and enhances its value proposition to its hospital customers globally. It intends to acquire lines and sell them through its existing interventional cardiology sales force, This is a divestiture of non-strategic, Critical Care business by Argon to concentrate on its higher growth, Interventional portfolio, Deal value -- \$48m |
| Medical Devices | Novanta Inc. (NASDAQ:NOVT) , a \$403.4m provider of precision photonic and motion control components and subsystems to OEMs. | World of Medicine GmbH , a Germany-based provider to OEMs. | World of Medicine is a leading supplier to original equipment manufacturers of regulatory controlled medical insufflators, pumps, and related disposables for the minimally invasive surgical market. The combined company will provide endoscopy, robotic surgery and other minimally invasive surgery applications with a broader offering and a global reach. Deal value -- \$115m on sales of \$120m (0.96x). |

| Sector | Acquiror | Target | Analysis |
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| Medical Devices | Royal Philips Electronics N.V. (NYSE: PHG, AEX: PHIA) , a \$27.1b developer of medical systems, consumer electronics and lighting products. | Respiratory Technologies, Inc. (RespirTech) , a provider of airway clearance solutions for chronic respiratory patients. | Strengthens Philips' solutions to manage care in the hospital and at home. As healthcare continues to transform to a value-based care model, Philips is strengthening its respiratory care portfolio, especially for COPD patients with bronchiectasis, an often underdiagnosed and undertreated comorbidity. RespirTech complements Philips' solutions with its innovative inCourage System technology, a proprietary design that pulsates a vest worn by the patient at home. The rhythmic inflation and deflation of these vests against the patient's chest help clear the lungs. Terms not announced. |
| Medical Devices | Royal Philips Electronics N.V. (NYSE: PHG, AEX: PHIA) , a \$27.1b developer of medical systems, consumer electronics and lighting products. | Electrical Geodesics, Inc. , a developer of non-invasive technologies used to monitor and interpret brain activity | Complements Philips' existing portfolio of imaging technologies (MRI and PET-CT) and advanced informatics for neurological applications. EGI has proprietary dense array EEG platform technology, which gathers brain activity data from many more electrodes than conventional EEG products. This generates significantly higher quality and more precise levels of information. The combined portfolios will enable Philips to address neurological disorders such as stroke, epilepsy, traumatic brain injury and Parkinson's disease. Deal value -- \$29.0m on \$14.3m of sales (2.0x). |
| Medical Devices | Savaria Corporation (TSX: SIS) , a \$119.7m Canada-based manufacturer of accessibility lifts and wheelchair accessible vans. | Span-America Medical Systems, Inc. , a manufacturer of therapeutic support surfaces and pressure management products for the medical market | For Savaria. adds a complementary product line, provides a new distribution channel into the institutional and government markets, increases our presence in the US, allowing it to be closer to 50% of its current business. Deal value -- \$80.2m on sales of \$61.2m (1.3x) and EBITDA of \$7.1m (11.3x). |
| Medical Devices | Sientra, Inc. (NASDAQ:SIEN) , a \$26.75M medical aesthetics company. | Miramar Labs, Inc. , a global medical device company dedicated to the aesthetic marketplace. | Broadens Sientra's aesthetics portfolio, adding the miraDry system, a FDA cleared device to reduce underarm sweat, odor and permanently reduce hair of all colors. As of the first quarter 2017, over 90,000 treatments have been sold to date with over 900 systems installed worldwide. Deal value -- \$20.0m on ~\$20m of sales (1.0x), up 19% year-over-year, and negative EBITDA. |
| Medical Devices | Stryker Corporation (NYSE:SYK) , a \$9.9b maker of Orthopedics, MedSurg, | Novadaq Technologies Inc. , a \$83.4m Canada-based maker of surgical and diagnostic fluorescence imaging devices. | Novadaq's "Spy" imaging systems allow surgeons conducting open procedures, such as cardiothoracic surgery and gastrointestinal surgery, to visualize blood flow and tissue perfusion in real time. Novadaq also markets a hand-held and an endoscopic version of the system for minimally |

| Sector | Acquiror | Target | Analysis |
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| | Neurotechnology and Spine products. | | invasive procedures. Novadaq's technology complements Stryker's advanced imaging portfolio and expands its product offerings into open and plastic reconstructive surgery. Last year, Stryker acquired Stanmore Implants for \$45.5m, disposable device maker Sage Products for \$2.8b and Physio Control, which makes defibrillators and CPR-assist devices for \$1.3b. It also acquired Synergetics' neuro portfolio and Becton Dickinson's vertebral compression fracture products. Novadaq is Stryker's first acquisition in 2017. Deal value -- \$701m on sales of \$83.42m (8.4x). |
| Medical Devices | Svenska Cellulosa Aktiebolaget (SCA) , a Swedish \$12.3b global hygiene and forest products company. | BSN Medical GmbH Svenska Cellulosa AB , a Germany-based manufacturer of wound care, noninvasive orthopedic and compression therapy products. | Weights SCA's business more toward healthcare. BSN has significant share in several attractive medical product markets and provides SCA with a new growth platform with future industry consolidation opportunities. About 85% of SCA's sales derives from its hygiene business and about 15% from forest products, which it intends to spinoff to shareholders. Earlier, private equity firm EQT, which owned BSN, sought to have BSN go public, after talks with two bidders aborted. BSN was bought by EQT in 2012 for ~\$1.9 billion and it has expanded the business through acquisitions as part of a buy-and-build strategy to boost BSN's operations in France, Brazil, South Africa and New Zealand and other markets. Deal value -- \$2.8b on sales of ~\$874.0m (3.2x) and EBITDA of ~\$210.0m (13.3x). |
| Medical Devices | Teleflex Inc. (NYSE: TFX) , a \$1.8b manufacturer of disposable vascular access products and diagnostics. | Pyng Medical Corp. , a developer of trauma and resuscitation products for front-line critical care personnel. | Pyng manufactures a portfolio of proprietary emergency medical products. The acquisition complements Teleflex's existing portfolio of cardiovascular, vascular access, surgical, respiratory, anesthesia and urology applications. Terms not announced. |
| Medical Devices | Varex Imaging Corporation (Nasdaq: VREX) , a \$635.7m developer of medical X-ray tubes and image processing solutions. | The Medical Imaging business of PerkinElmer, Inc. , a \$2b provider of technology, services, and solutions to the diagnostics, lab, research, environmental, and other markets. | PerkinElmer's Medical Imaging business is a supplier of digital flat panel X-ray detectors that serve as components for industrial, medical, dental and veterinary X-ray imaging systems. The business has about 280 employees and is headquartered in California with operations in Germany, the Netherlands and the United Kingdom. The acquisition adds new digital imaging technology to Varian's portfolio and expands its footprint in the industrial imaging sector. Deal value -- \$276m on revenue of \$140m (1.98x). |

| Sector | Acquiror | Target | Analysis |
|------------------|---|--|---|
| Medical Services | Teladoc, Inc. (NYSE: TDOC) , a \$139.17m provider of tele-health services. | Best Doctors, Inc. , a leading expert medical consultation company. | Best Doctors uses advanced analytics, cognitive computing, and a patient-centric process to help physicians assess and treat, and patients understand, complex medical problems. Best Doctors' network consists of 50,000+ medical experts in more than 450 medical specialties. Teladoc is simplifying how patients access care by delivering a platform that addresses a spectrum of medical conditions, from non-critical, episodic needs to chronic, complicated medical conditions. Deal value -- \$440m on sales of \$92.2m (4.7x). |