UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the Month of: July 2021

Commission File Number: 001-38428

PolyPid Ltd.
(Translation of registrant's name into English)

18 Hasivim Street
Petach Tikva 495376, Israel
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

☒ Form 20-F ☐ Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ☐

CONTENTS

Corporate Presentation

On July 2, 2021, the Registrant made available a corporate presentation on its website. A copy of the corporate presentation is attached hereto as Exhibit 99.1.

EXHIBIT INDEX

Exhibit No.	
99.1	Corporate Presentation

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

POLYPID LTD.

Date: July 2, 2021

By: /s/ Dikla Czaczkes Akselbrad
Name Dikla Czaczkes Akselbrad
Title: Executive Vice President and Chief Financial Officer

Exhibit 99.1

Disclaimer

This presentation of PolyPid Ltd. (the "Company") contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act and other securities laws. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and similar expressions or variations of such words are intended to identify forward-looking statements. For example, the Company is using forward-looking statements when it discusses statements relating to our objectives, plans, and strategies, the expected timing of trials, the research, development, and use of our platform technologies, technologies, products and product candidates, and all statements (other than statements of historical facts) that address activities, events, or developments that the Company intends, expects, projects, believes, or anticipates will or may occur in the future. Forward-looking statements are not historical facts, and are based upon management's current expectations, beliefs and projections, many of which, by their nature, are inherently uncertain. Such expectations, beliefs and projections are expressed in good faith. However, there can be no assurance that management's expectations, beliefs and projections will be achieved and actual results may differ materially from what is expressed in or indicated by the forward-looking statements. Forward-looking statements are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the forward-looking statements. For a more detailed description of the risks and uncertainties affecting the Company, reference is made to the Company's reports filed from time to time with the Securities and Exchange Commission ("SEC"), including, but not limited to, the risks detailed in the Company's Annual Report on Form 20-F, filed with the SEC on March 5, 2021. Forward-looking statements speak only as of the date the statements are made. The Company assumes no obligation to update forward-looking statements to reflect actual results, subsequent events or circumstances, changes in assumptions or changes in other factors affecting forward-looking information except to the extent required by applicable securities laws. If the Company does update one or more forward-looking statements, no inference should be drawn that the Company will make additional updates with respect thereto or with respect to other forward-looking statements.

PolyPid Overview

PolyPid is a Phase 3 clinical-stage biopharmaceutical company focused on developing targeted, locally administered and prolonged release therapeutics to address diseases with high unmet medical needs

Polymer-Lipid Encapsulation matriX (PLEX) Platform

Our proprietary matrix of several thousand layers of polymers and lipids that physically embed an active drug and enable a customizable, predetermined release rate of up to several months

Lead Product

$D\text{-}PLEX_{100}$ is currently in Phase 3 development for the prevention of surgical site infections (SSIs) following abdominal (soft tissue) or post-cardiac sternal (bone) surgeries

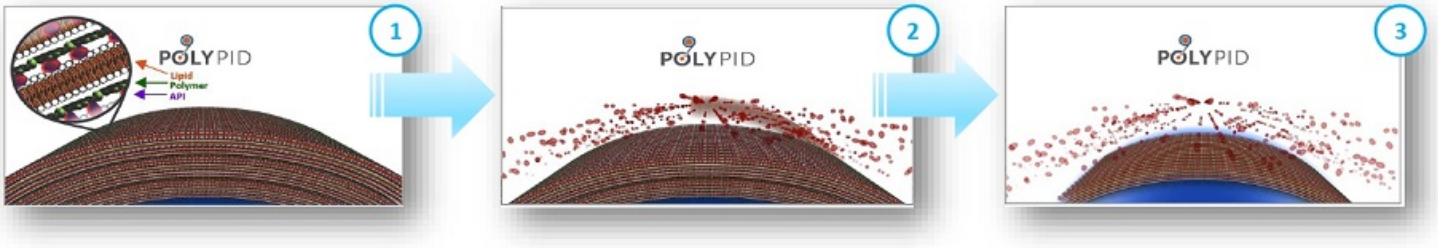
101
issued patents[1]

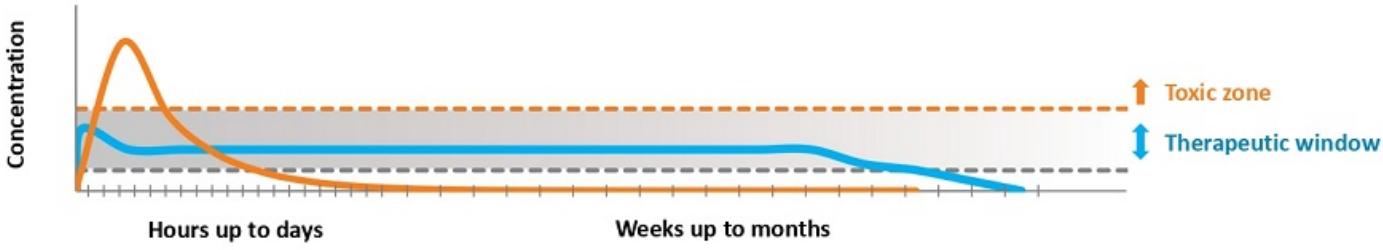
>80
employees[1]

HQs
Global: Petach Tikva, Israel
US: Summit, NJ

[1] *As of June 2021.*

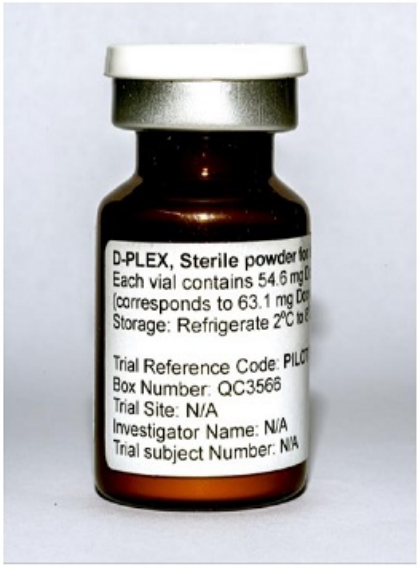
D-PLEX$_{100}$ – Localized Drug Delivery System that is Optimized for the Management of Surgical Site Infections (SSIs)



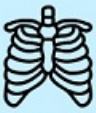


D-PLEX$_{100}$ - Localized Drug Delivery System Optimized for Prevention of SSIs

- ✓ **Active Ingredient:** Doxycycline (broad spectrum antibiotic)
- ✓ **Release Duration:** Prolonged effect up to 4 weeks
- ✓ **Indication:** prevention of post cardiac surgery sternal infection and post abdominal surgery incisional infection
- ✓ **Release profile:** No Burst > Constant & linear release
- ✓ **Dosing:** Varies by incision size. 1 vial >10cm, 10cm < 2vials > 20cm, 3 vials >20cm
- ✓ **Effective release rate:** To overcome resistant bacteria & biofilm



Pipeline Summary

Product candidate and indication	Preclinical	Phase 1	Phase 2	Phase 3	Key milestones
 **D-PLEX$_{100}$** Prevention of SSI **in soft tissue (abdominal)**			SHEILD 1 pivotal study for approval in colorectal surgery SHEILD 2 supplemental study for expanded indication		• SHIELD 1 approval sufficient for FDA approval • First Patient Enrolled in Jul. 2020 • Top-Line Results from First Phase 3 Trial Expected by End of 2021[1]
 **D-PLEX$_{100}$** Prevention of SSI **in bone tissue (sternum)**					• First Patient Enrolled in Feb. 2020[2]
 **OncoPLEX** Intratumoral therapy					• Preclinical Stage

Unencumbered, late-stage pipeline with near-term value inflection

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[1] Following the enrolment of 500 patients that will complete their 30 days follow-up in SHIELD I, the study design provides for a blinded sample size re-estimation based on the primary endpoint of the study in order to determine final patient sample size within the 616 to 900 patients range. We expect to report topline results from SHIELD I at the end of 2021 assuming the study will be completed at the lower range of the sample size.

[2] In December 2019, we initiated a potentially pivotal Phase 3 clinical trial of D-PLEX$_{100}$ for the prevention of sternal SSIs after cardiac surgery and, subject to feedback from the FDA, we plan to continue development of D-PLEX$_{100}$ for the prevention of SSIs in patients undergoing abdominal surgery. We intend to pursue a broad label for D-PLEX$_{100}$ for the prevention of SSIs, the scope of which will depend on the clinical data generated from our potentially pivotal Phase 3 clinical trials and discussions with the FDA and the EMA.

The Burden of Surgical Site Infections

Up to 30%

Estimated SSI rate of patients undergoing colorectal surgery[1,2]

7-11 days

Additional post-operative hospital days for patients with SSIs[3]

20%

SSI rate of all health care-associated infections in US hospitals[3]

2-11x

Increased risk of death for SSI patient (up to 40% mortality after deep sternal infection)[1]

$11k-26k

Cost of treatment per infection directly attributable to SSIs

US $10bn EU ~€11bn

Estimated SSI-related incremental annual hospital costs in the US and EU[4,5]

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[1] Deverick J et al, Strategies to Prevent Surgical Site Infections in Acute Care Hospitals: 2014 Update, Infection Control and Hospital Epidemiology, 2014. [2] Estimated figures likely underestimated as ~50% of SSIs become evident only after a patient has been discharged. [4] Financial Impact of Surgical Site Infections on Hospitals. John Shepard and al. JAMA Surg. 2013;148(10):907-914. https://www.cagesilensers.com/wave/2018/2/6/1698406/big-show-reveal-hip-surgery-complications_ [5] Surgical site infection - a European perspective of incidence and economic burden. Leaper DJ et al. Int Wound J. 2004 Dec;1(4):247-73. [3] ~€11bn represents the midpoint of the range discussed in WHO Global guidelines on the prevention of surgical site infection. Nov 2016: 29 ;[6] New WHO recommendations on intraoperative and postoperative measures for surgical site infection prevention: an evidence-based global perspective. Benedetto Allegranzi et al. Lancet Infect Dis. 2016 Dec;16(12):e288-e303. [7] Centers for Disease Control and Prevention Guideline for the Prevention of Surgical Site Infection, JAMA Surgery, Special Communication, 2017

A Globally Recognized Problem

SSI GUIDELINES: What's New and What's Not

CDC Centers for Disease Control and Prevention

*"**The human and financial costs of treating surgical site infections (SSIs) are increasing**. The number of **surgical procedures performed in the United States continues to rise**, and surgical patients are initially seen with **increasingly complex comorbidities**."* [7]

World Health Organization

*"The **prevention of SSIs is complex and requires** the integration of a **range of preventive measures before, during, and after surgery**. No international guidelines are available…the **prevention of SSIs is a priority for patient safety**."* [6]

Our Initial Focus: Enhancing Post-Operative SSI Prevention

The Current Paradigm

Selected Key Players

Medtronic
TYRX Absorbable Antibacterial Envelope

Johnson & Johnson
ETHICON

Smith+Nephew
PICO[0] 7

3M
Acelity
prevena

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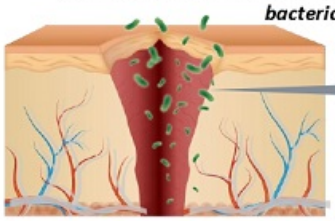
Systemic Antibiotics Are Not Enough

- Systemic antibiotic prophylaxis (IV, Oral) ½ - 1-hour before the surgery is generally used to prevent SSIs
- But because of the surgical incision, the antibiotic penetration into the surgical wound is significantly limited (due to blood flow interruption) [1,2*]

In SSIs, the surgical incision becomes contaminated by bacteria



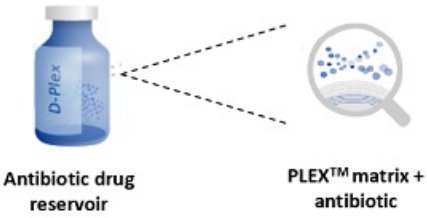
Our solution: Direct local antibiotic administration at the site

The Goal: effective and safe antibiotic concentrations over prolonged period within the surgical site

*Source: American College of Surgeons and Surgical Infection Society: Surgical Site Infection Guidelines, 2016 Update. Ban et al. J Am CollSurg Vol. 224, No. 1, January 2017 ; New WHO recommendations on intraoperative and postoperative measures for surgical site infection prevention: an evidence-based global perspective - Benedetta Allegranzi et al. The Lancet Infectious Diseases, Vol. 16, No. 12 *In CABG, left internal mammary artery (LIMA) harvesting further decrease antibiotic penetration ; Furthermore, Tissue perfusion is impaired in patients with diabetes or atherosclerosis, who are common in CABG / cardiac Surgery. 1 Cefazolin and linezolid penetration into sternal cancellous bone during coronary artery bypass grafting . Martin Andreas et al. European Journal of Cardio-Thoracic Surgery 48 (2015) 758–764 ; 2 Direct sternal administration of Vancomycin and Gentamicin during closure prevents wound infection. Andreas M. et al. Interactive CardioVascular and Thoracic Surgery (2017) 1–5.*

D-PLEX$_{100}$ is a potential game changer in the prevention of SSIs

- **PLEX technology to physically encapsulate a broad spectrum antibiotic**
- **Designed to provide localized and prolonged infection management after surgery**



Antibiotic drug reservoir

PLEX^{TM} matrix + antibiotic

Example of surgeon spreading the D-PLEX$_{100}$ paste in an open-heart surgery

D-PLEX$_{100}$: locally-administered doxycycline

- Administered **directly in the surgical site**
- Local constant, effective concentration of antibiotic over **prolonged duration** (4 weeks)
- **Simple administration** that requires no additional training

Source: BCC research report

A Small Single Dose of D-PLEX$_{100}$ is Sufficient for High Local Concentrations for Several Weeks

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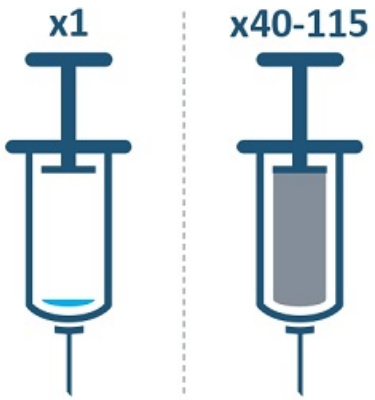
Local delivery of doxycycline

55-164 mg

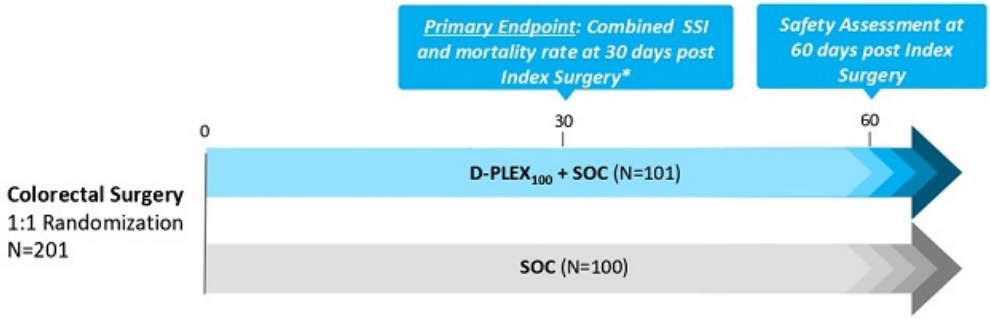


Systemic formulation of doxycycline

60 pills = 6,000 mg

D-PLEX$_{100}$ is designed to provide prolonged delivery following single administration and subsequent high local concentrations and has the potential to supersede existing antibiotic delivery systems, and may offer advantages over systemic treatments in the prevention of SSIs, including against many antibiotic-resistant bacterial strains

Phase 2: D-PLEX$_{100}$ for the Prevention of Post Abdominal Surgery (Soft Tissue) SSIs



Key secondary efficacy endpoints

- Number of hospitalization days post colorectal surgery due to SSI
- Average ASEPSIS assessment score during 30 days post-surgery
- Number of surgical interventions due to SSI

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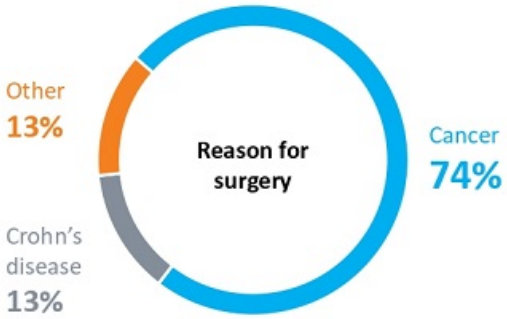
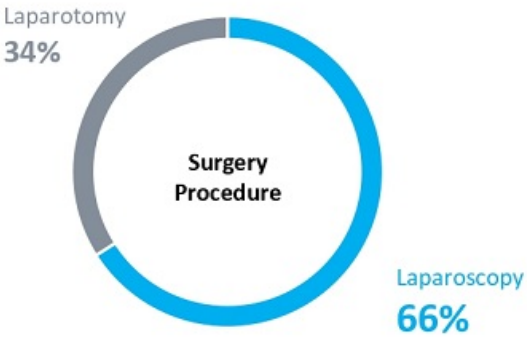
** SSI include Superficial and Deep SSIs ; Combined primary endpoint as confirmed by a Blinded and independent adjudication committee.*

Demographics and Baseline Data Summary Statistics

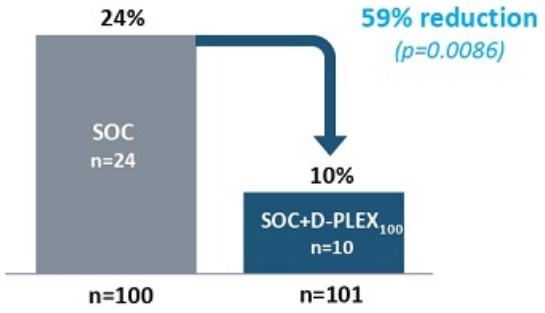
Baseline demographic (Age, BMI etc) and surgical characteristics were balanced between the two treatment groups



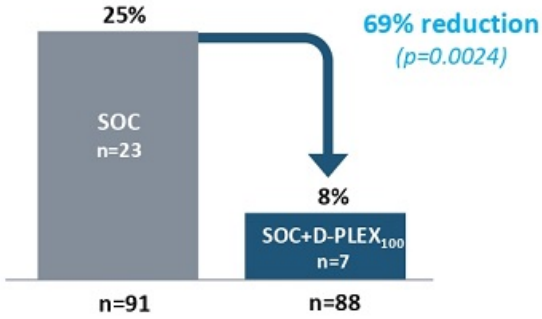


Positive Phase 2 Results in Abdominal Surgery

Primary Endpoint* ITT Analysis



Primary Endpoint - Per Protocol Analysis



- **5 deaths observed in the SoC treatment arm, as compared to zero observed in the D-PLEX$_{100}$ +SOC treatment arm within the first 60 days post-surgery *(p=0.0290)***
- **Generally well tolerated, with no confirmed drug-related SAEs and no increase in wound healing impairment at the incision site as compared to control**

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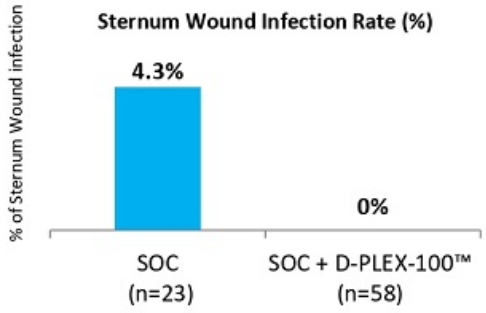
** PEP is the Combined SSI and mortality rate which is measured by the number and proportion of subjects with either an SSI event (as determined by the abdominal surgery) or mortality or any reason within 30 days post index surgery.*
Note: The current standard of care for preventing SSIs involves the implementation of a range of treatment and prevention measures before, during and after surgery, including prophylactic antibiotic administration, antiseptic measures and wound care.

D-PLEX in Sternal / Bone Surgeries

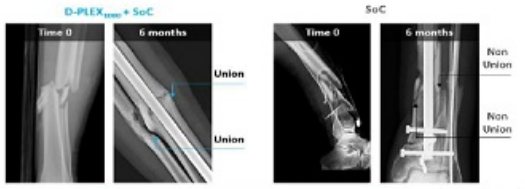
D-PLEX$_{100}$: P1b / 2 Open Heart Surgery Results[1]



No Sternal Wound Infection in 58 Treated patients
(Based on recent literature, we would have expected ~3-5 patients with SWIs in the D-PLEX$_{100}$ treatment group and 1-2 patients in the SoC control group) [6-10]

D-PLEX$_{1000}$: Open-Tibia Fractures[11]

	D-PLEX$_{1000}$ + SoC	SoC
Deep bone infections[2] / non-union[3] rate (%)	0% (0/24)	11.1% (3/27)



No deep bone infections after 6 months across 24 treated patients, in comparison with reported incidences in the literature ranging between 7% to 19%[4-5]

No treatment related SAEs

1 Modified ITT results, based on 3 months follow-up Clinical Study Report; [2] One event; [3] Two events where another surgery and implantation of bone graft was needed ; [4] Prodromidis et al. The 6-Hour Rule for Surgical Debridement of Open Tibial Fractures: A Systematic Review and Meta-Analysis of Infection and Nonunion Rates. 2016 ; [5] Paletti FL et al. Current Concepts and Principles in Open Tibial Fractures - Part II Management and Controversies. 2017. [6] Adding vancomycin to perioperative prophylaxis decreases deep sternal wound infections in high-risk cardiac surgery patients. Renelike S. et al. European Journal of Cardio-Thoracic Surgery (2017) 1–7 [7] Direct sternal administration of Vancomycin and Gentamicin during closure prevents wound infection. Andreas M. et al. Interactive CardioVascular and Thoracic Surgery (2017) 1–5 [8] Prevention of surgical site sternal infections in cardiac surgery: a two-centre prospective randomized controlled study. Schimmer C et al. European Journal of Cardio-Thoracic Surgery (2016) 1–6. [9] Based on 3 months follow-up interim report. [10] Surgical Site Infections Volume-Outcome Relationship and Year-to-Year Stability of Performance Rankings. Calderwood MS. et al. Med Care 2017;55: 79–85. [11] Predecessor product candidate to D-PLEX100.

5 Trials Completed and Two Potentially Pivotal Phase 3 Trial Underway

D-PLEX has already completed 5 clinical trials with c. 400 patient data set

FDA Recognizes the Potential Value of DPLEX$_{100}$ in SSI

2 Fast Track Designations

- More **frequent meetings** with the FDA to discuss the development plan
- Eligible for accelerated approval and priority review, if relevant criteria are met
- **Rolling Review**

2 Qualified Infectious Disease Product (QIDP) Designations

- All the benefits of Fast Track
- Additional **5-years of market exclusivity**
- **Improved CMS add-on payment**, increase of the NTAP from 50% to 75%

Breakthrough Therapy Designation

- All the benefits of Fast Track
- Intensive **guidance from FDA** on an efficient drug development program
- Organizational **commitment from FDA** involving senior managers

D-PLEX$_{100}$ Could Provide Clinical Benefit in Broad Surgical Population

Soft Tissues

General Surgeries

- Open Abdominal/GI/Colorectal Surgeries
  - Stomach & Intestinal
  - Herniorrhaphies
  - Colorectal
  - Cholecystectomies
  - Appendectomies

Selected Gynecological / Urological Surgeries

Hysterectomies ; Salpingo-Oophorectomies & Oophorectomies ; Breast Reconstruction ; Prostatectomies ; Nephrectomies

Bone Tissues

Cardiac

- Open-Heart Surgeries (CABG, valve repair / replacement, heart / lung transplant, congenital defect repair)

Orthopedic

- Fractures
- Hip Arthroplasties (primary + Revision)
- Knee Arthroplasties (primary + Revision)
- Spine Fusions (Cervical, Thoracic and Lumbar)

US market represents c.14M major surgeries [1,2]

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[1] Source: IQVIA PM&I Global FlexView. Internal analysis; *based on Current Clinical Development program and regulatory strategy ;* [2] *Mainly major Open-surgeries (except for Colorectal Surgeries).*

Key CMS Programs are Strong Drivers for D-PLEX$_{100}$

HAC reduction
Hospital-Acquired Condition Reduction

- CMS's non-payment for HACs - SSIs
- Total Medicare payments to facilities reduced by 1%
- Payment adjusted on all CMS claims
- Public reporting of quality measures

HRRP
Hospital Readmissions Reduction

- Incentivize hospitals to decrease readmission rates (frequently are caused by HAIs)
- Payment reductions are applied (up to 3% of all Medicare base operating DRG payments)

VBP
Value-Based Purchasing

- CMS rewards acute-care hospitals with incentive or penalties for the quality of care they provide (up to 2% of DRG payment)
- Episodes of care for 90 days

In 2019, Medicare penalized 7 of the 21 hospitals on the U.S. News Best Hospitals Honor Roll[1]

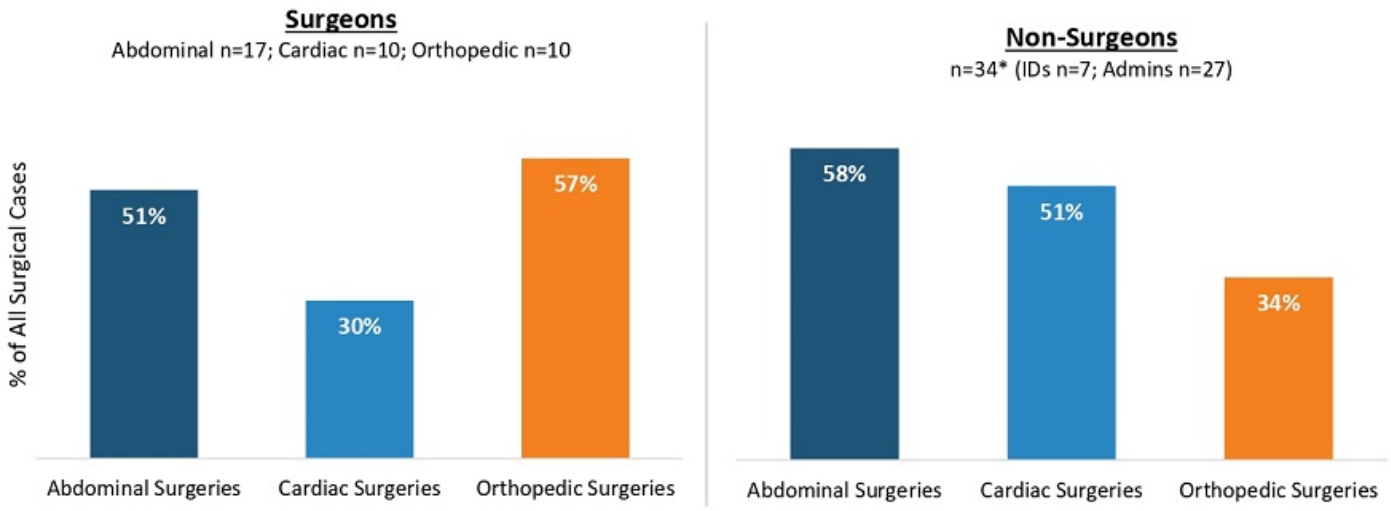
Hospital	HAC penalty [2]	Readmission penalty [3]
UPMC Shadyside in Pittsburgh	$2,720,780	$977,439
Ronald Reagan UCLA Medical Center in L.A.	$2,400,390	$347,034
Keck Hospital of USC	$1,553,190	$92,152
Stanford Health Care's main hospital in Northern California	$3,704,170	$88,052
UCSF Medical Center in San Francisco	$3,388,430	$397,376
NewYork-Presbyterian/Weill Cornell Medical Center in Manhattan	$7,441,260	$1,677,600
Mayo Clinic's hospital in Phoenix	$1,787,440	$233,798

In fiscal 2020, CMS will withhold an estimated $563 million in Medicare payments to hospitals under the Hospital Readmissions Reduction Program[4]

Source: 1] Preeminent Hospitals Penalized Over Rates Of Patients' Injuries, Kaiser Health News, https://tinyurl.com/y5863xtl 2] Hospital Inpatient Pay-for-Performance Programs 2013-2021: Final Impact Summary, The Advisory Board analysis 3] https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program 4) https://www.beckershospitalreview.com/finance/cms-penalizes-2-583-hospitals-for-high-readmissions-5-things-to-know.html

Surgeons and non-surgeons anticipate high adoption rate of D-PLEX$_{100}$

Anticipated Use of D-Plex$_{100}$ By Surgery and Respondent Type



Source: Polypid market research , March 2021

Feedback from the market research study

*"The fact that you leave it in there for 28 days, that's interesting...because a lot of our **wounds get infected way down the road**." –Cardiac Surgeon*

*"If there's a sustained release over a period of weeks, that would continue antibiotic presence in a wound that is trying to heal with open incision. This **keeps the fires burning in terms of antibiotic presence**." –Infectious Disease Specialist*

*"Any infection needs to be reported. If there's a readmission for infection and that procedure was performed at the hospital, that **case is reviewed by Head of Orthopedics** and the Infectious Disease Specialist." – Orthopedic Surgeon*

*"I think if Product X caused a 69% reduction in surgical site infection, I think **anybody who wouldn't use it would be doing a detriment to the patient**, if the contrast is so stark."*
– Colorectal/Abdominal Surgeon

Source: Polypid market research , March 2021

State-of-the-Art Manufacturing Facility

PolyPid was granted Manufacturer Authorization and Good Manufacturing Practice (GMP) certification by Israel's Ministry of Health (IMOH) and EU qualified person for its state-of-the-art ~10,500 square feet GMP manufacturing facility

- Investment – machinery, qualifications and validations
- Supply capacity – meets commercial demand for at least 30 months from launch

Summary


POLYPID is poised for potential near-term value creation
Pursuing expedited development pathway
Large and growing target market
Broad applicability of PLEX technology
Near-term value inflection points
Strong management team