

OPAT door de ogen van de microbioloog

- ◎ Historiek/achtergrond
- ◎ Schakelrol van de microbioloog
- ◎ OPAT door Imeldaziekenhuis: resultaten 2016-2020
- ◎ Uitdagingen en opportuniteiten

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Historiek

- 2016: proof-of-concept, literatuurstudie, indicatiestelling
- OPAT eerst begonnen in dagziekenhuis
- Daarna in thuis-setting
- Intensieve samenwerking met artsen, thuisverpleegkundigen, apothekers, verpleegkundig-medewerkers antibioticabeleid voor opstart en overleg
- Publicatie: Smismans et al. OPAT: proof of concept in a peripheral Belgian hospital after review of the literature, Acta Clinica Belgica, 73:4, 257-267

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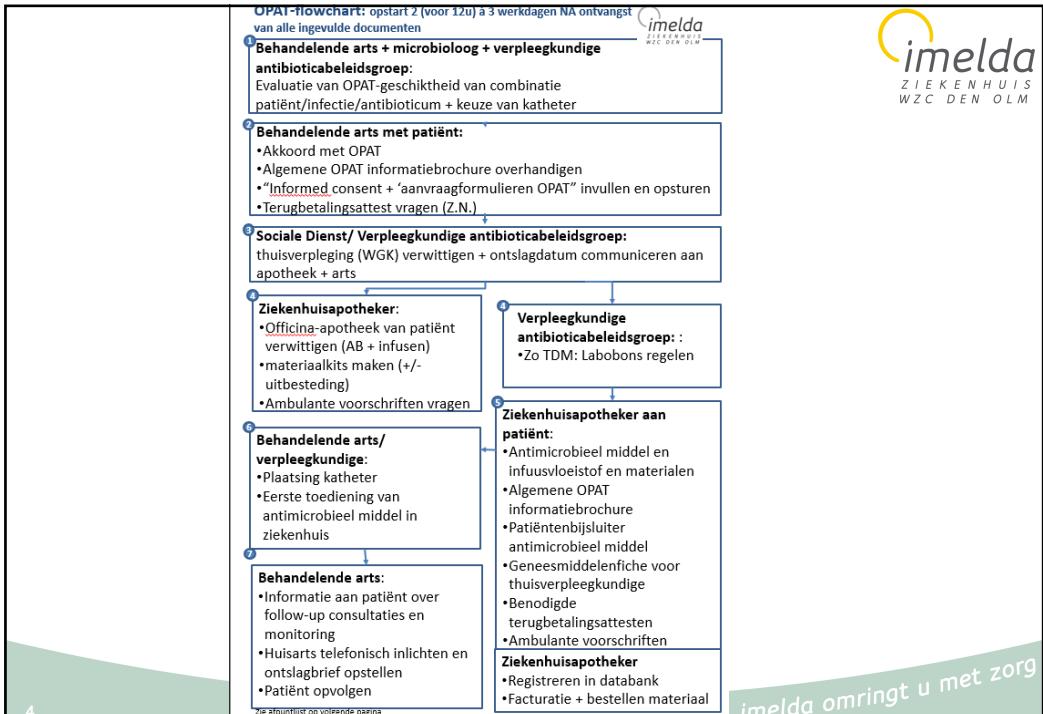
Huidig OPAT proefproject

- OPAT in thuis-setting
- Informed consent
- Thuisverpleging: Wit-Gele Kruis Antwerpen/Vlaams-Brabant
- Antibiotica: cefazoline, ceftazidime, ceftriaxone (mede in schoot van OPAT consortium), flucloxacilline, piperacilline-tazobactam, temocilline, vancomycine (+TDM)

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Schakelrol van de microbioloog

- Indicatiestelling
- Coördinatie en ondersteuning bij opstart
- Overleg met thuisverpleging
- Wachtdienst ivm complicaties
- Opleiding

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Coördinatie en ondersteuning opstart

- Communicatie artsen/assistenten/verpleging naar patiënt
 - Correcte informatie: informed consent, bijwerkingen..
 - Rollen van verschillende actoren
 - Opstartduur, ontslagmogelijkheid
- Communicatie apotheek/verpleegkundig-medewerkers antibioticabeleid
 - Bemiddeling/facilitatie/vragen

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Afspraken met thuisverpleegkundige dienst

Voor OPAT → heden met Wit-Gele Kruis

Reden:

- Proefproject
- Eén aanspreekpunt
- Uniform kwaliteitsysteem/opleidingen
- Opvolging / meldsysteem bij incidenten / complicaties

AANDACHTSPUNT:

- **Bij bestaande thuisverpleegkundige(n)**

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Wachtdienst

OPAT@imelda.be / telefonisch

- Wachtdienst microbioloog
- Katheterproblemen: flushing, verzorging
- Antibioticaproblemen: aanpassing dosis (TDM), hoeveelheid fysiologisch (kristallisatie), adverse events,..
- Praktische vragen: staken OPAT/verwijderen katheter,..

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Opleiding/overleg

- Thuisverpleging: Wit-Gele Kruis
 - Katheterproblematiek
- Sociale dienst
 - Inschakelen in flow OPAT
- Verpleging
 - Optimalisatie flow
 - Basiskennis/opleiding
 - Onderlinge afspraken ivm katheterzorg

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Resultaten: kernpunten

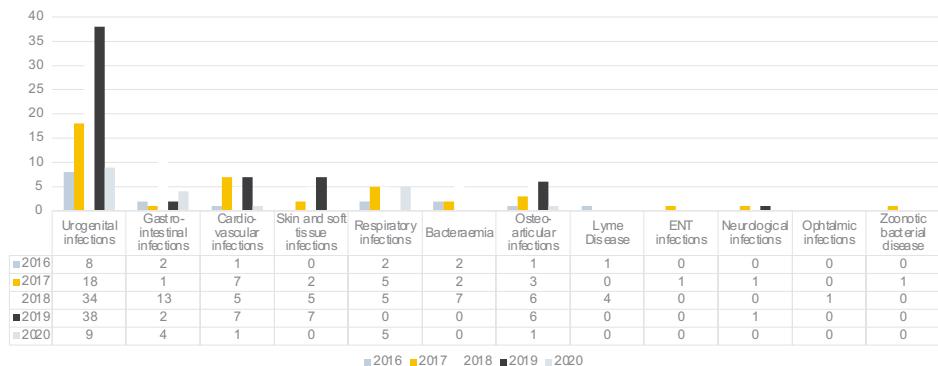
- Tussen 2/1/2016 – 19/6/2020
- 199 patiënten, 219 OPAT trajecten
- 3784 ligdagen uitgespaard
- 124 OPAT thuis (stijgende proportie 2018-2020: 139/161)
- Adverse events: 7% (50% katheter gerelateerd), heropnames 5%, 17 “repeat” OPAT -> overall success rate: 187/219 (85%)
- Bij 7 patiënten vancomycine + TDM

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Resultaten

Indications



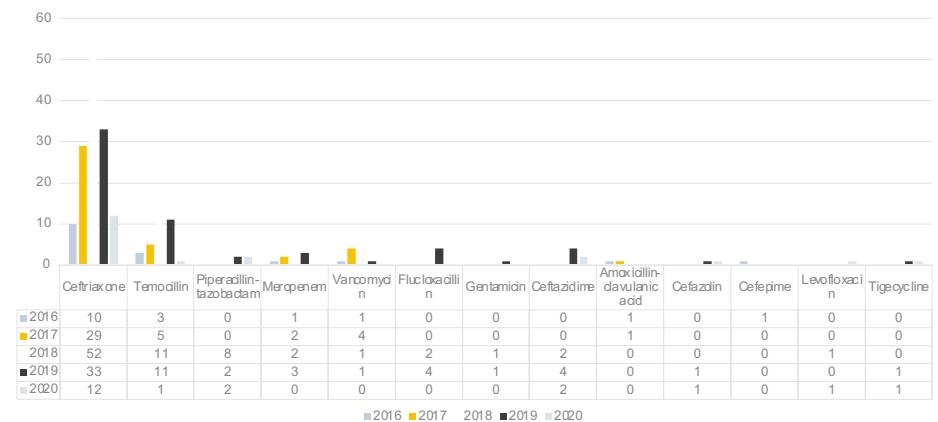
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Resultaten

Antibiotic



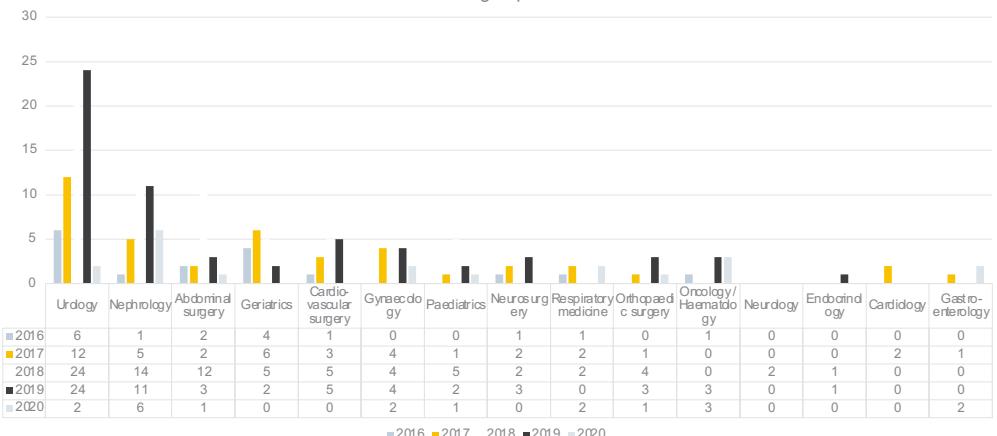
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Resultaten

Prescribing department



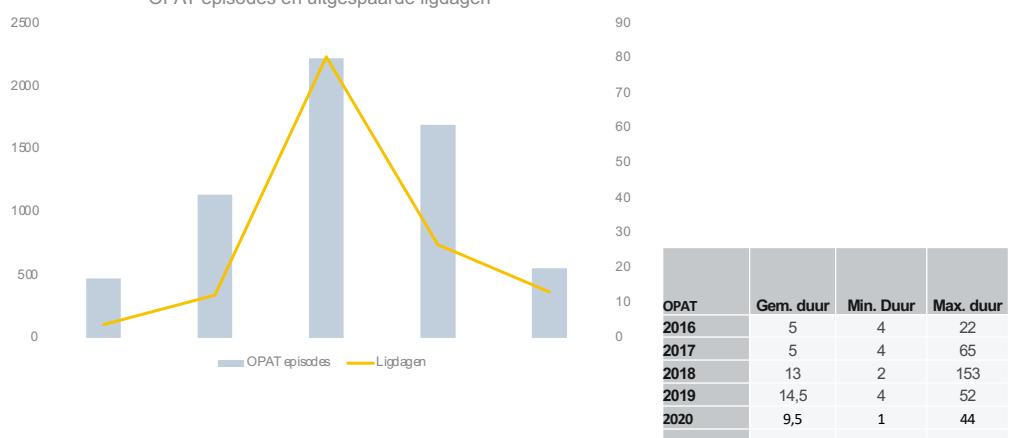
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Resultaten: evoluties

OPAT episodes en uitgespaarde ligdagen



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Resultaten: adverse events

Patient nr	Complication / Adverse event	Cessation of OPA	Readmission within 30 day	Indication	Antibiotic	Hospitalization duratio	OPAT duratio
1	Re-treatment	n/a	Yes	Bacteraemia	Temocillin	10	7
2	Re-treatment	n/a	No	Urogenital infection	Ceftriaxone	6	5
2	Re-treatment	n/a	No	Urogenital infection	Ceftriaxone	4	11
3	Re-treatment	n/a	No	Urogenital infection	Ceftriaxone	5	5
4	Re-treatment	n/a	No	Urogenital infection	Temocillin	17	8
5	Re-treatment	n/a	No	Urogenital infection	Ceftriaxone	4	5
6	Re-treatment	n/a	Yes	Bacteraemia	Piperacillin-tazobactam	10	16
6	Re-treatment	n/a	No	Urogenital infection	Meropenem	0	5
6	Re-treatment	n/a	No	Urogenital infection	Meropenem	0	30
7	Re-treatment	n/a	No	Vascular infection	Vancomycin	29	5
8	Re-treatment	n/a	Yes	Urogenital infection	Temocillin	5	8
9	Re-treatment	n/a	No	Urogenital infection	Temocillin	13	9
10	Nausea	No	No	Osteo-articular infection	Ceftriaxone + Metronidazole	81	16
11	Renal insufficiency, hyperkalaemia	Yes	No	Vascular infection	Ceftriaxone + Vancomycin	33	47
12	Catheter related	No	Yes	Osteo-articular infection	Fludoxacillin	9	5
13	Drug-related allergy *	Yes	No	Lyme disease	Ceftriaxone	7	23
14	Drug-related allergy **	Yes	Yes	Skin/soft tissue infection	Ceftazidime + Co-trimoxazole	6	11
15	Catheter related	No	Yes	Urogenital infection	Ceftriaxone	366	20
16	Deep venous thrombosis	No	Yes	Urogenital infection	Ceftriaxone	2	22
17	Viral infection (Influenza A)	No	Yes	Vascular infection	Ceftriaxone	14	29
18	Catheter related	No	Yes	Urogenital infection	Ceftriaxone	7	24
19	Catheter related	No	Yes	Urogenital infection	Ceftriaxone	0	42
20	Catheter related	No	Yes	Skin/soft tissue infection	Fludoxacillin	13	15
20	Catheter related	No	Yes	Skin/soft tissue infection	Fludoxacillin	0	15
21	Catheter related	No	Yes	Urogenital infection	Ceftriaxone	8	10
22	Hypokalaemia	Yes	Yes	Neurosurgical infection	Fludoxacillin	48	5
23	Catheter related	No	Yes	Osteo-articular infection	Ceftazidime	1	13
24	Deep venous thrombosis	Yes	Yes	Gastro-intestinal infection	Ceftriaxone + Metronidazole	16	2
25	Re-treatment	n/a	Yes	Urogenital infection	Temocillin	3	17
26	Re-treatment	n/a	Yes	Cardio-vascular infection	Ceftriaxone	30	22
4	Re-treatment	n/a	No	Urogenital infection	Levofloxacin	0	9
28	Re-treatment	n/a	No	Urogenital infection	Ceftazidim	5	10
28	Re-treatment	n/a	No	Urogenital infection	Ceftazidim	2	20

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Resultaten: adverse events

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26	Re-treatment	n/a	Yes	Cardio-vascular infection	Ceftriaxone	30	22
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28	Re-treatment	n/a	No	Urogenital infection	Ceftazidim	5	10
28	Re-treatment	n/a	No	Urogenital infection	Ceftazidim	2	20

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Resultaten: adverse events

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12	Catheter related	No	Yes	Osteo-articular infection	Fludoxacillin	9	5
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20	Catheter related	No	Yes	Skin/soft tissue infection	Fludoxacillin	13	15
20	Catheter related	No	Yes	Skin/soft tissue infection	Fludoxacillin	0	15
21	Catheter related	No	Yes	Urogenital infection	Ceftriaxone	8	10
23	Catheter related	No	Yes	Osteo-articular infection	Ceftazidime	1	13

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Resultaten: adverse events

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10	Nausea	No	No	Osteo-articular infection	Ceftriaxone + <i>Metronidazole</i>	81	16
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Resultaten: Benchmarking

	Imelda	UCL	UZ Leuven
Periode	2016-2020	2013-2017	2017-2019
Aantal	219	218	152
Liggaden uitgespaard	3784	5205	3153
Gemiddelde OPAT duur (d)	9.5	16	16
Indicatie, %	UWI, 48.9%	UWI, 44%	UWI, 40.8%
Antibioticum, %	Ceftriaxone 62.1%	Ceftriaxone 41.3%	Temocilline 24.3% Ceftriaxone 21.1%

Quitens et al. Infection <https://doi.org/10.1007/s15010-020-01398-4>;
 Briquet et al. Acta clinica Belgica, p. [1-9] (2019) <http://hdl.handle.net/2078.1/224026> – DOI : 10.1080/17843286.2019.1608396

Uitdagingen en opportuniteiten

1. Opleidingen verpleging

- Thuisverpleging na pilootproject fase
- Hospitaalverpleging: procedures, opstart, informatie, katheterzorg,...
- Video/afstandsopleiding

2. Financiering: Aandeel patiënt

- Debaenst et al. ACTA CLINICA BELGICA
<https://doi.org/10.1080/17843286.2020.1772572>: 12 two-stage revisions and 4 different antibiotic regimens, the average simulated cost difference for OPAT was **€2.402 surplus for the patient, €-25.950 for health care and €-23.548 in total.**

3. Digitalisering

- Administratie integreren in medisch dossier/ordercommunicatie

4. Verdere benchmarking/opvolging resultaten



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