

IBDsmart REMIND for 6 monthly Crohn's disease activity indices for adalimumab renewal

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Overview

- ▶ Background regarding adalimumab and CDAI
- ▶ How IBDsmart REMIND works
- ▶ Our results thus far

Background - Adalimumab initiation criteria

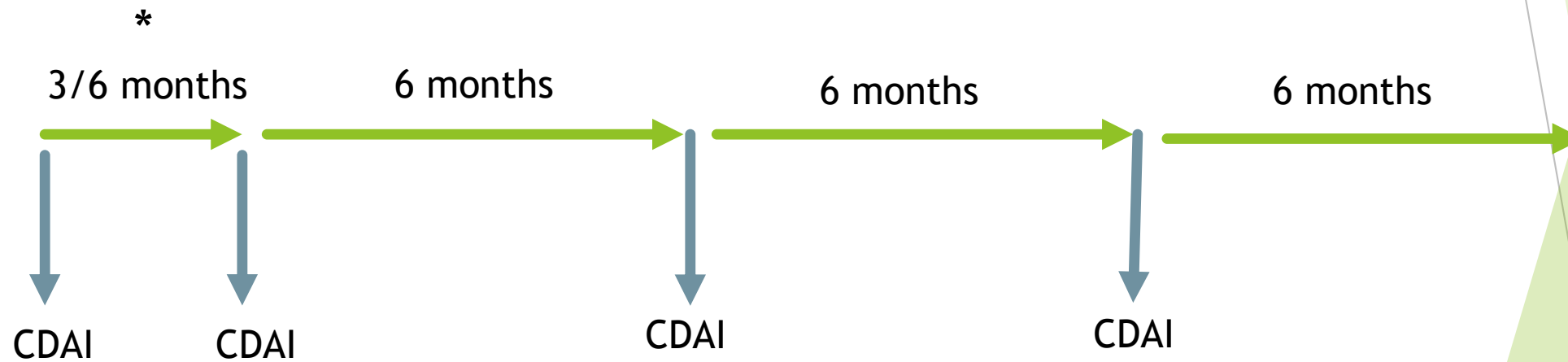
- ▶ Severe Crohn's disease, defined as:
 - ▶ **CDAI \geq 300, OR**
 - ▶ >50cm of small bowel effected, OR
 - ▶ Short gut syndrome, OR
 - ▶ ileostomy or colostomy AND intestinal inflammation
- ▶ AND inadequate response to prior therapy with immunomodulators and corticosteroids
- ▶ AND Further surgery not clinically appropriate

- ▶ VALID FOR 3 MONTHS

Background - Adalimumab renewal

- ▶ Significant reduction in disease activity since started medication
 - ▶ CDAI reduced by 100 points since adalimumab started, OR
 - ▶ CDAI ≤ 150 , OR
 - ▶ Adequate response to treatment but CDAI cannot be assessed
- ▶ AND dose ≤ 40 mg every fortnight

Overview



*New patients = 3 months; renewals = 6 months

What is the CDAI?

7 day
diary

Measured
once

Clinical or laboratory variable	Weighting factor
Number of liquid or soft <u>stools</u> each day for seven days	x 2
<u>Abdominal pain</u> (graded from 0-3 on severity) each day for seven days	x 5
General well being, subjectively assessed from 0 (well) to 4 (terrible) each day for seven days	x 7
Presence of complications*	x 20
Taking Lomotil or opiates for diarrhea	x 30
Presence of an abdominal mass (0 as none, 2 as questionable, 5 as definite)	x 10
<u>Hematocrit</u> of <0.47 in men and <0.42 in women	x 6
Percentage deviation from standard weight	x 1

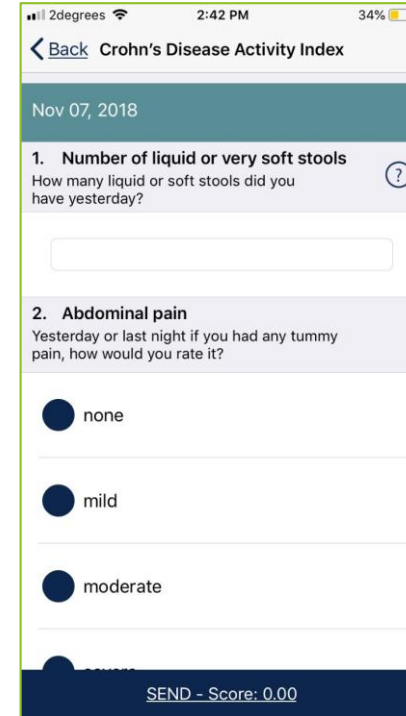
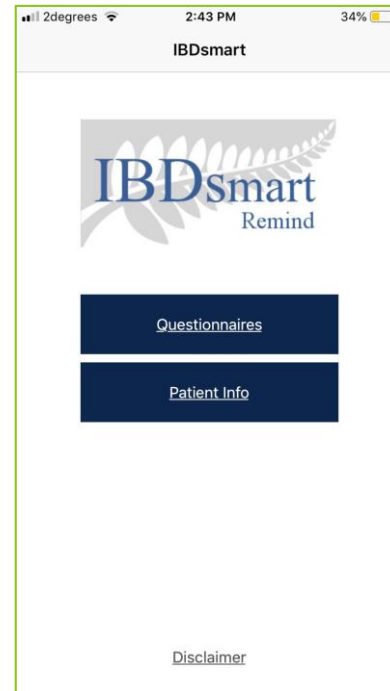
What is IBDsmart REMIND?

- ▶ Derived from IBDsmart
- ▶ CDAs traditionally done face-to-face, OR Pen-and-paper, OR Email
- ▶ IBDsmart REMIND allows it to be done via smartphone app

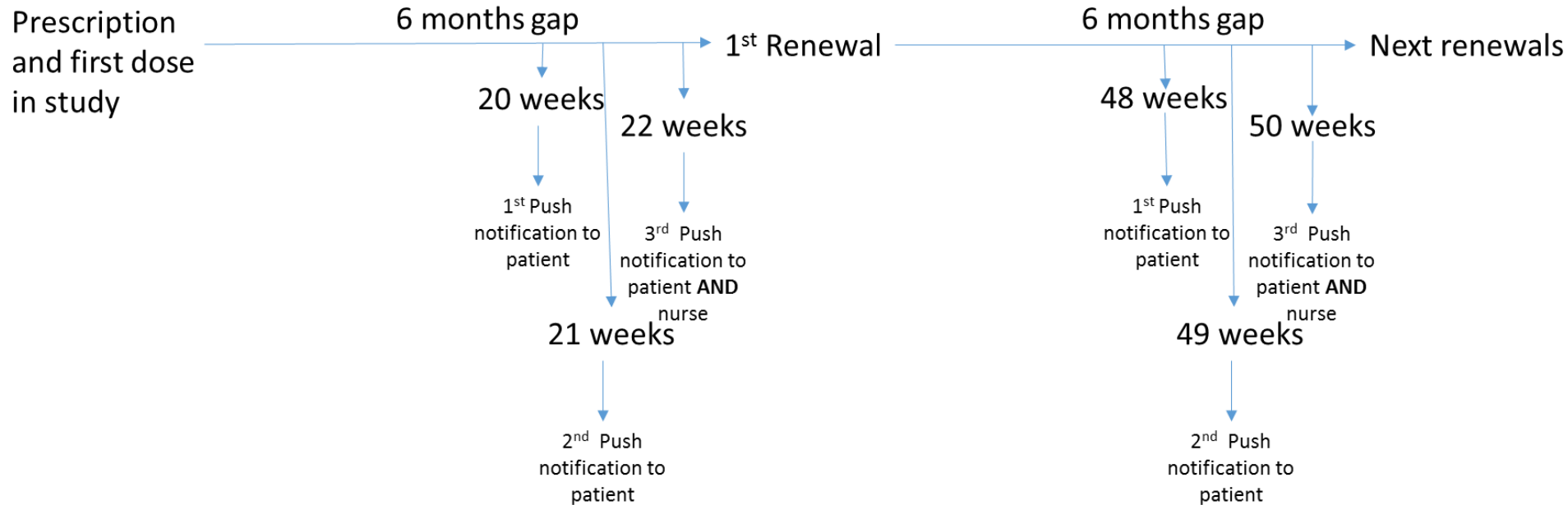


How it works

- ▶ Download
- ▶ Enter details
 - ▶ NHI
 - ▶ Gender
 - ▶ Height
 - ▶ Date of birth
 - ▶ Phone #
 - ▶ Email address
 - ▶ Email addresses of medical team
- ▶ Complete CDAI
 - ▶ 1st day- 7 questions
 - ▶ Days 2-7 - 3 questions



What happens at each timepoint



- As soon as patient starts filling out the 7-day diary, message to IBD nurse.
- This will also trigger the reminder that a blood test needs to be obtained.
- 3rd push notification goes to patient AND nurse so that a phone call can follow.

Report received by healthcare professional



IBDsmart Report Aug 16, 2018

Patient [Redacted] Date of Birth [Redacted]
Gender [Redacted] NHI [Redacted]
Height [Redacted] Phone number [Redacted]
Standard Weight 64.2 kg
Questionnaire CDAI
Score (excluding hematocrit) 51.0

	Aug 10	Aug 11	Aug 12	Aug 13	Aug 14	Aug 15	Aug 16
Soft/liquid stools	0	0	0	0	0	0	1
Abdominal pain	0	1	0	1	0	0	0
General well being	1	1	4	0	0	0	1
Extra-intestinal	0						
Anti-diarrhoeals	0						
Abdominal mass	0						
Weight	114						



If no report received

IBDsmart Remind: Patient [REDACTED] has not completed their CDAI



IBDSmart Support <ibd@codefluegel.com>

Tue 11/20/2018 11:00 AM

To: [REDACTED] ibdsmart hci;

Action Items

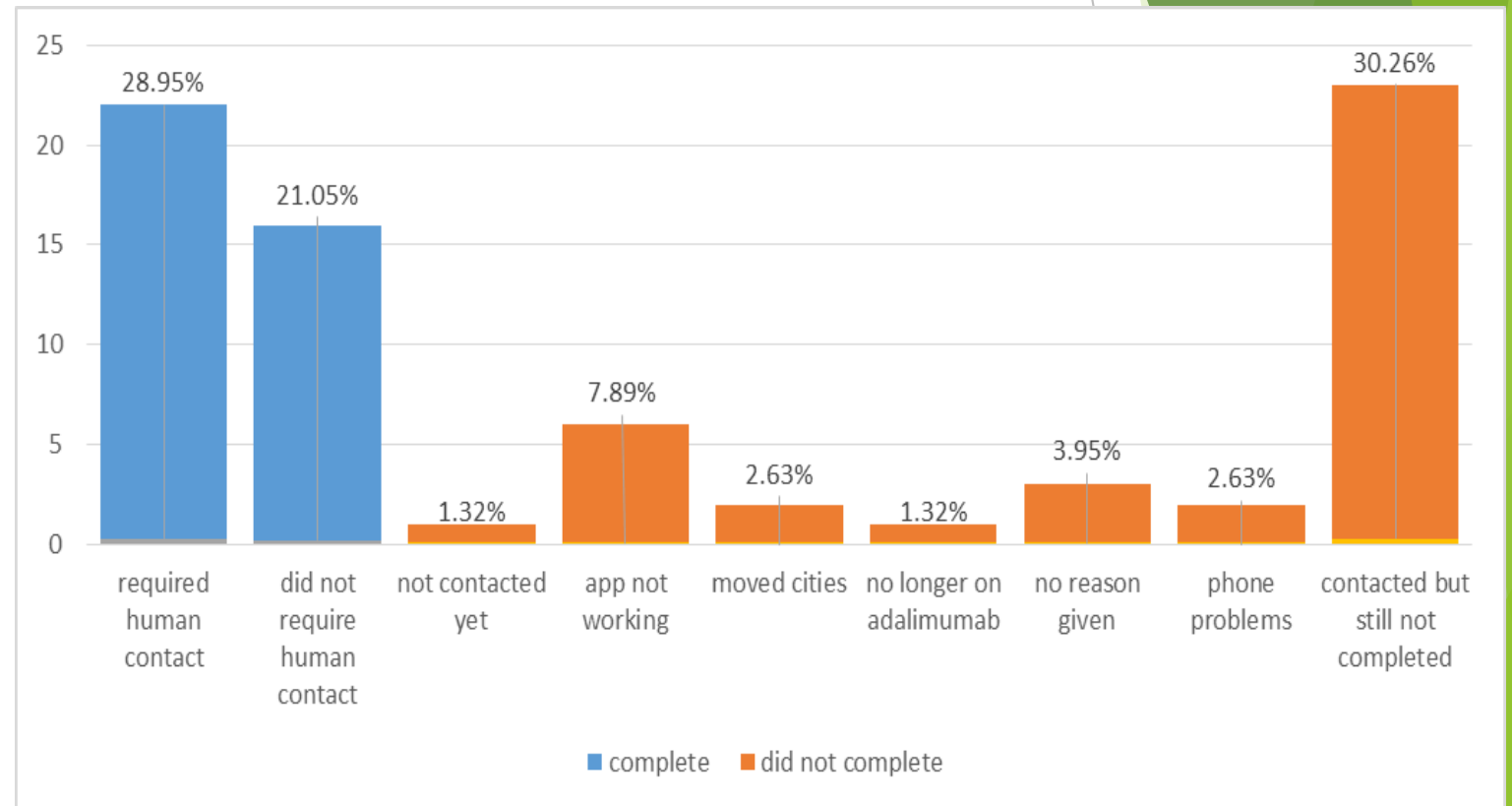
Please call them to remind them. Their number is [REDACTED]

Our results thus far...

- ▶ 175 approached; 83 enrolled (47.4% response rate)
- ▶ Average age 37.3, 46.0% male
- ▶ 29 have withdrawn since consenting (3 moved out of town, 2 no longer on adalimumab, 9 trouble with the app, 3 trouble with the phone, and 12 unspecified reasons)

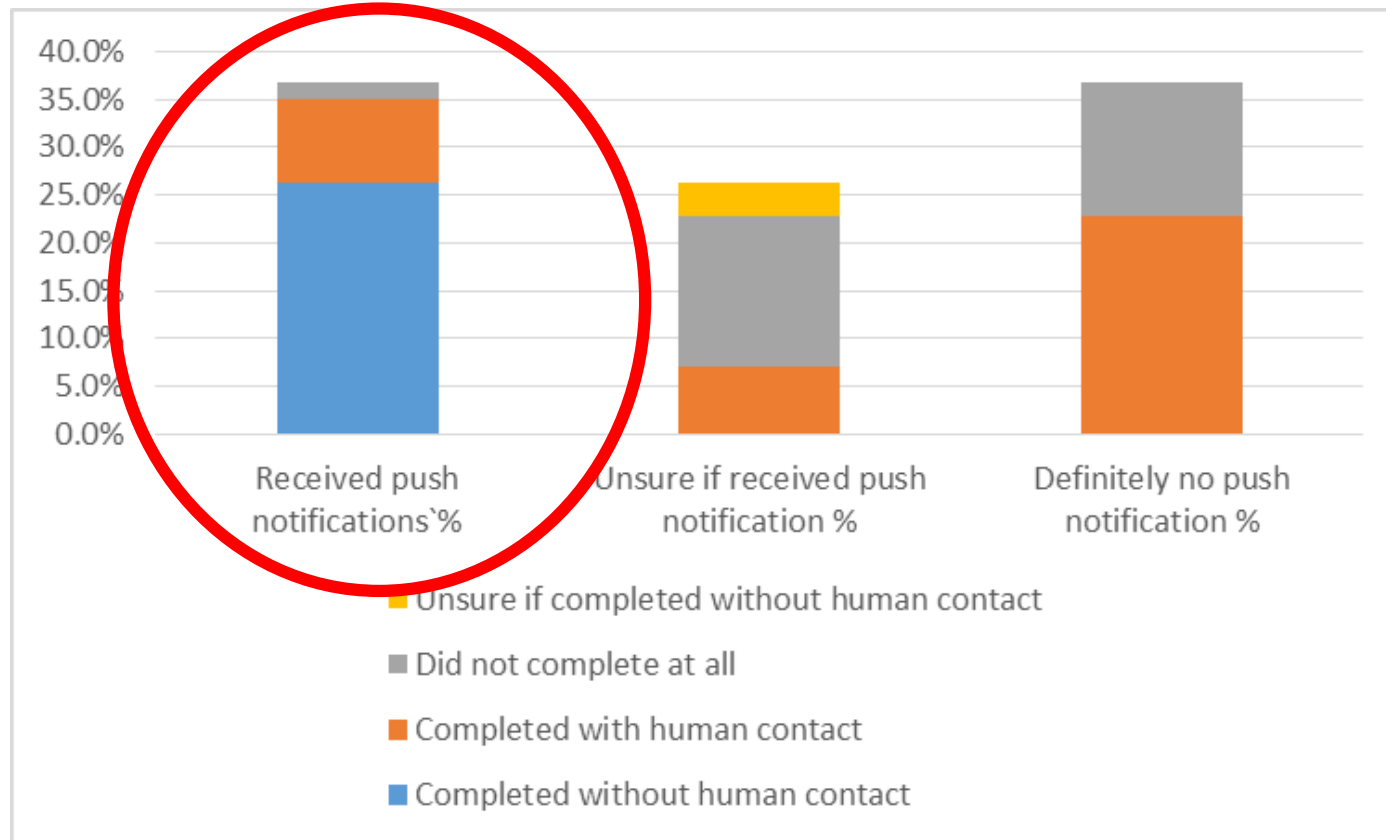
At 6 months

- ▶ 76 have reached
- ▶ 38 completed
 - ▶ 22 required human contact (57.9%)
- ▶ 38 did not complete
 - ▶ 14 withdrawn (6 app not working, 2 moved cities, 1 no longer on adalimumab, 3 no reason given, 2 phone problems)
 - ▶ 1 not contacted yet
 - ▶ 23 contacted but still not completed



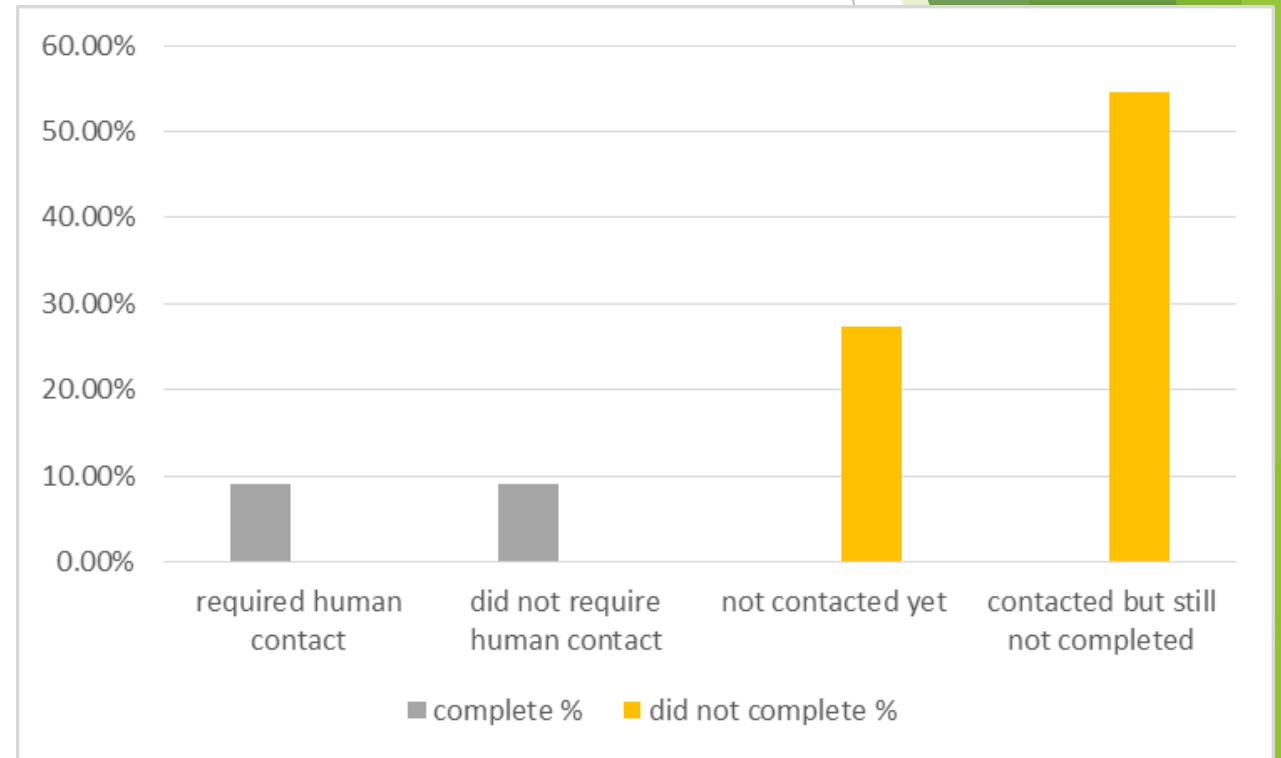
At 6 months

- ▶ 21/57 (36.8%) successfully received push notifications (unsure about 15, 21 definitely not)
 - ▶ Among these, 15 successfully completed CDAI without human contact



At 12 months

- ▶ 11 have reached (without withdrawing)
- ▶ 2 completed
 - ▶ 1 Completed after human contacted
 - ▶ 1 did not require human contact
- ▶ 9 did not complete
 - ▶ 3 not contacted yet
 - ▶ 6 contacted but still not completed
- ▶ 1/11 (9.1%) successfully received push notifications (4 unsure, 6 definitely not)
 - ▶ This person completed without human contact



Conclusions

- ▶ IBDsmart REMIND is effective when push notifications work
- ▶ The workload of IBD Nurses can be decreased when technology works properly
- ▶ Future iterations will utilise email more

Acknowledgements

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