Supplementary Table1: Specific Pharmacodynamic (PD) Treatment Failure Criteria and the Target Escalation Plan

Specific PD Target	Timing by infusion (~week)	PCDAI/CDAI cut-points	(and/or) CRP cut-points	(and/or) fecal calprotectin cut-points
Checkpoint 2	Dose4 (~week10-14)	delta PCDAI<12.5 or a PCDAI>30 (child) delta CDAI<70 (adult)	<50% change from baseline	<50% change from baseline
Checkpoint 3	Dose6 (~week26)	PCDAI≥10 CDAI≥150	>0.5 g/dL	>250 µg/g
PD Target Failure for *any 2 consecutive* infusions after (dose6)		PCDAI≥30 CDAI>220	≥1 g/dL	---
PD Target Failure for any *single* infusion after dose6				>500 µg/g
Target Escalation plan*	PD Failure1: New PK target = 10-15 µg/mL		PD Failure2: New PK target = 15-20 µg/mL (max)	

*The trough concentration is the primary target, therefore, pharmacodynamic targets are only instituted if the prior trough concentration was within the target. PCDAI, pediatric Crohn's disease activity index; CDAI, Crohn's disease activity index; CRP, c-reactive protein; PK, pharmacokinetic.

Supplementary Table2. Criteria for Secondary Nonresponse and Study Withdrawal

Secondary Nonresponse (may remain in the trial)	• Remaining on prednisone/prednisolone or oral budesonide for >14 weeks after week20 (corticosteroid restarts) or remaining on prednisone/prednisolone or oral budesonide after week44
Secondary Nonresponse (meet study withdrawal criteria)	• Subjects in the conventional care arm receiving >10 mg/kg infliximab and/or <25 days apart between infusions during maintenance. • Subjects in the precision care arm receiving >12.5 mg/kg infliximab during induction (first 3 doses) • Subjects in the precision care arm receiving >15 mg/kg infliximab and/or <25 days apart between infusions during maintenance. • Subjects who have a Crohn's disease-related surgery • Subjects who develop an intra-abdominal abscess or inflammatory mass • Subjects diagnosed with a bacterial infection requiring intravenous antibiotics or hospitalization (related to the infection) • Subjects who discontinuation of infliximab before week42 (either initiated by the subject or treating physician) • Any plan to start another biologic (anti-integrin, anti-cytokine), small molecule (any JAK inhibitor or sphingosine-1-phosphage inhibitor) or 6-mercaptopurine (including Imuran or azathioprine) during the trial • Anaphylaxis (hypersensitivity reaction) during/after an infusion that is deemed by the provider, medical monitor or principal investigator to be unsafe to attempt a subsequent future infusion