Psoriasis Pearls

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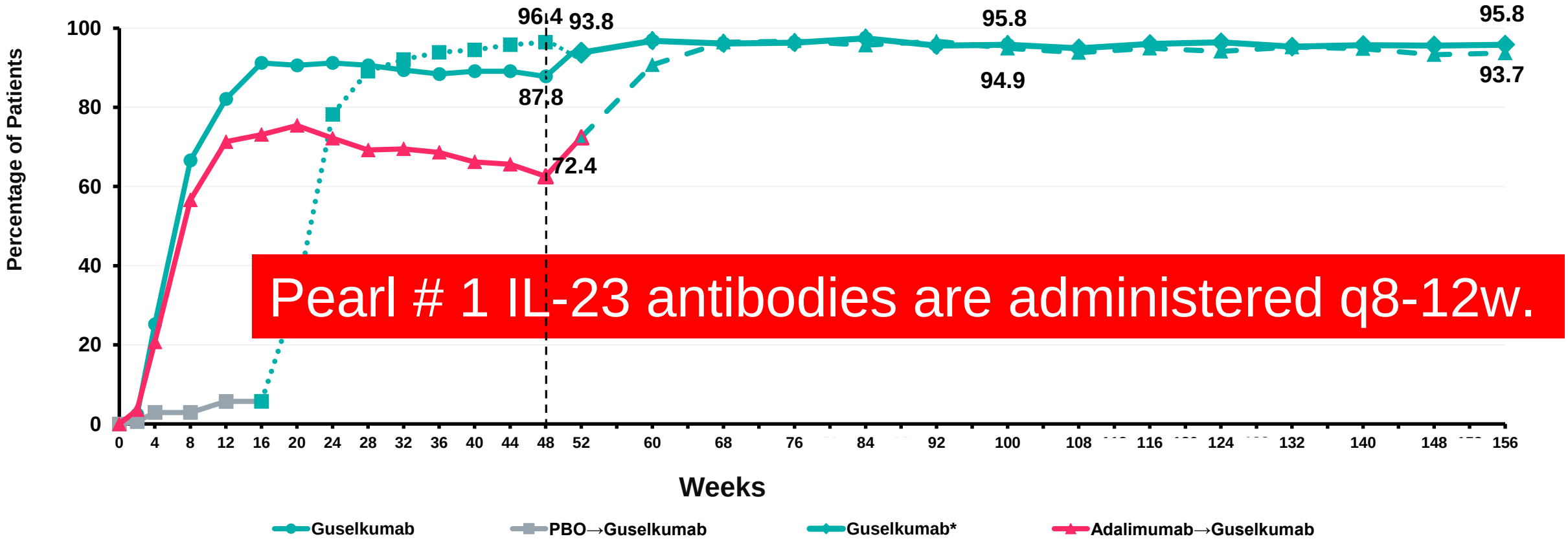
Psoriasis Pearls

Pearl #1
Patients who can’t easily self-inject every 1-2 weeks need either a pill or a medication that requires infrequent injections

Figure 4. Proportion of Patients Who Achieved PASI 75 Response Through Week 156, *Primary Analysis*†



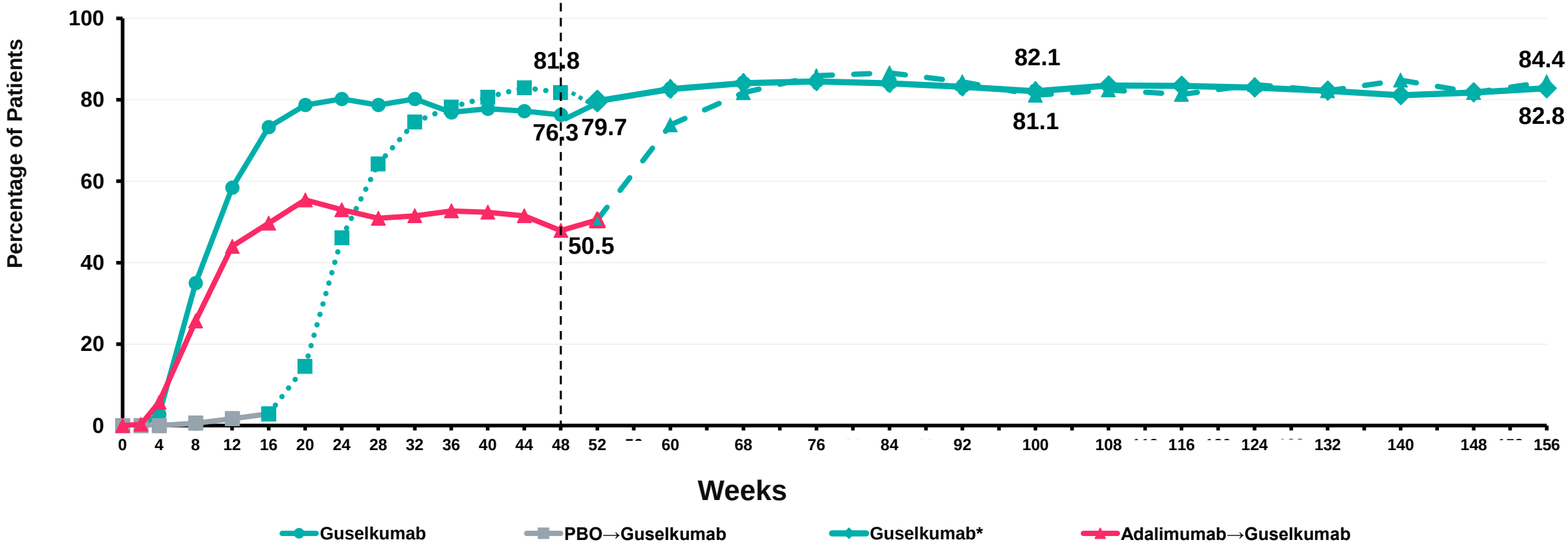
Pearl # 1 IL-23 antibodies are administered q8-12w.

Guselkumab n=329	329			
PBO→Gus n=174	165			
Guselkumab* n=	468	448		431
Ada→Gus n=334	279	275		269

†NRI through Week 48, then TFR beyond Week 48.

*Includes patients randomized to guselkumab at baseline and to placebo who crossed over to guselkumab at Week 16.

Figure 5. Proportion of Patients Who Achieved PASI 90 Response Through Week 156, *Primary Analysis*†



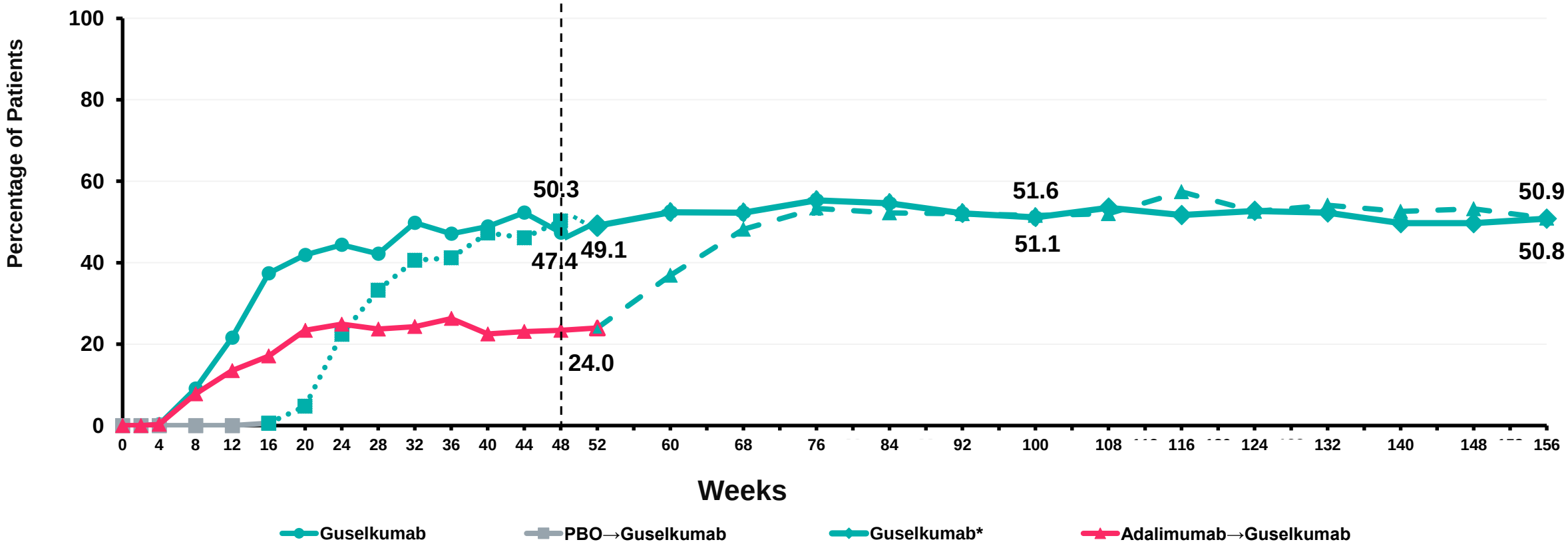
Guselkumab n=	329	329		
PBO→Gus n=	174	165		
Guselkumab* n=		468	448	431
Ada→Gus n=	334	279	275	269

†NRI through Week 48, then TFR beyond Week 48.

*Includes patients randomized to guselkumab at baseline and to placebo who crossed over to guselkumab at Week 16.

C.E.M. Griffiths, et al. FCD 2018.

Figure 6. Proportion of Patients Who Achieved PASI 100 Response Through Week 156, *Primary Analysis*[†]



Guselkumab n=	329	329		
PBO→Gus n=	174	165		
Guselkumab* n=		468	448	431
Ada→Gus n=	334	279	275	269

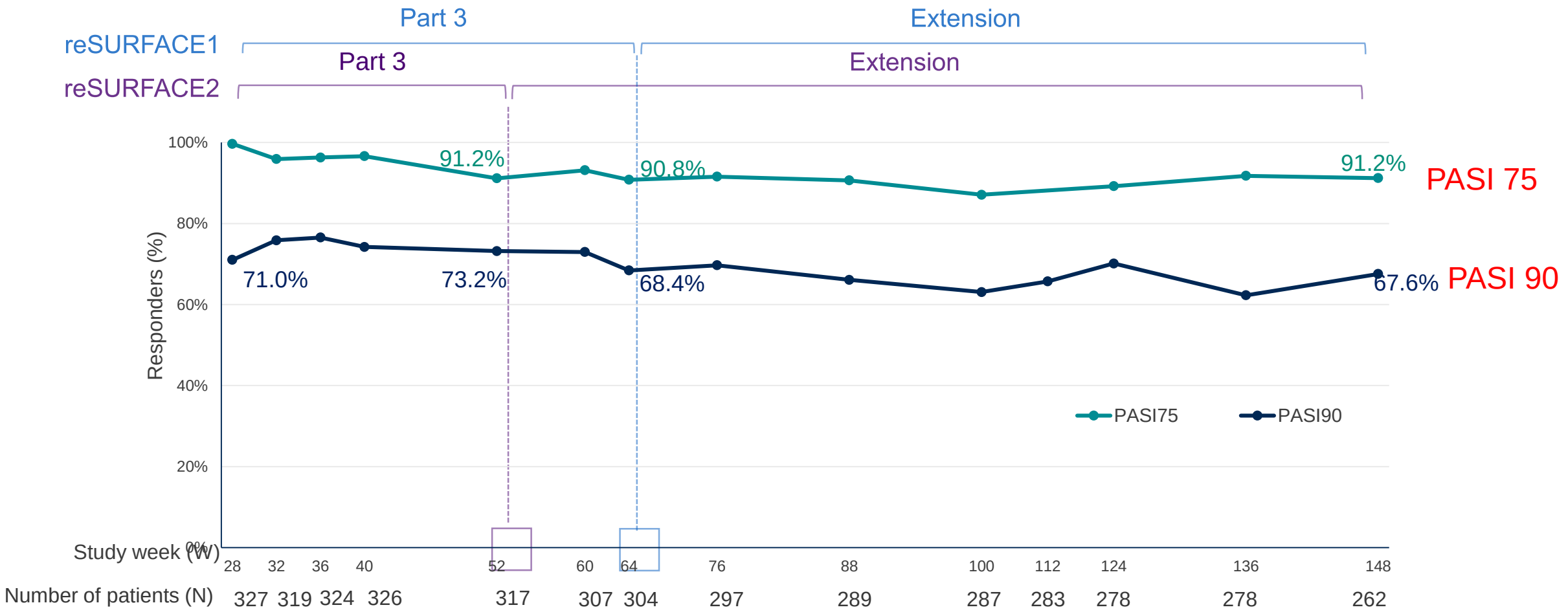
[†]NRI through Week 48, then TFR beyond Week 48.

*Includes patients randomized to guselkumab at baseline and to placebo who crossed over to guselkumab at Week 16.

C.E.M. Griffiths, et al. FCD 2018.

Long-term efficacy through week 148 - Pooled data (reSURFACE1 and 2)

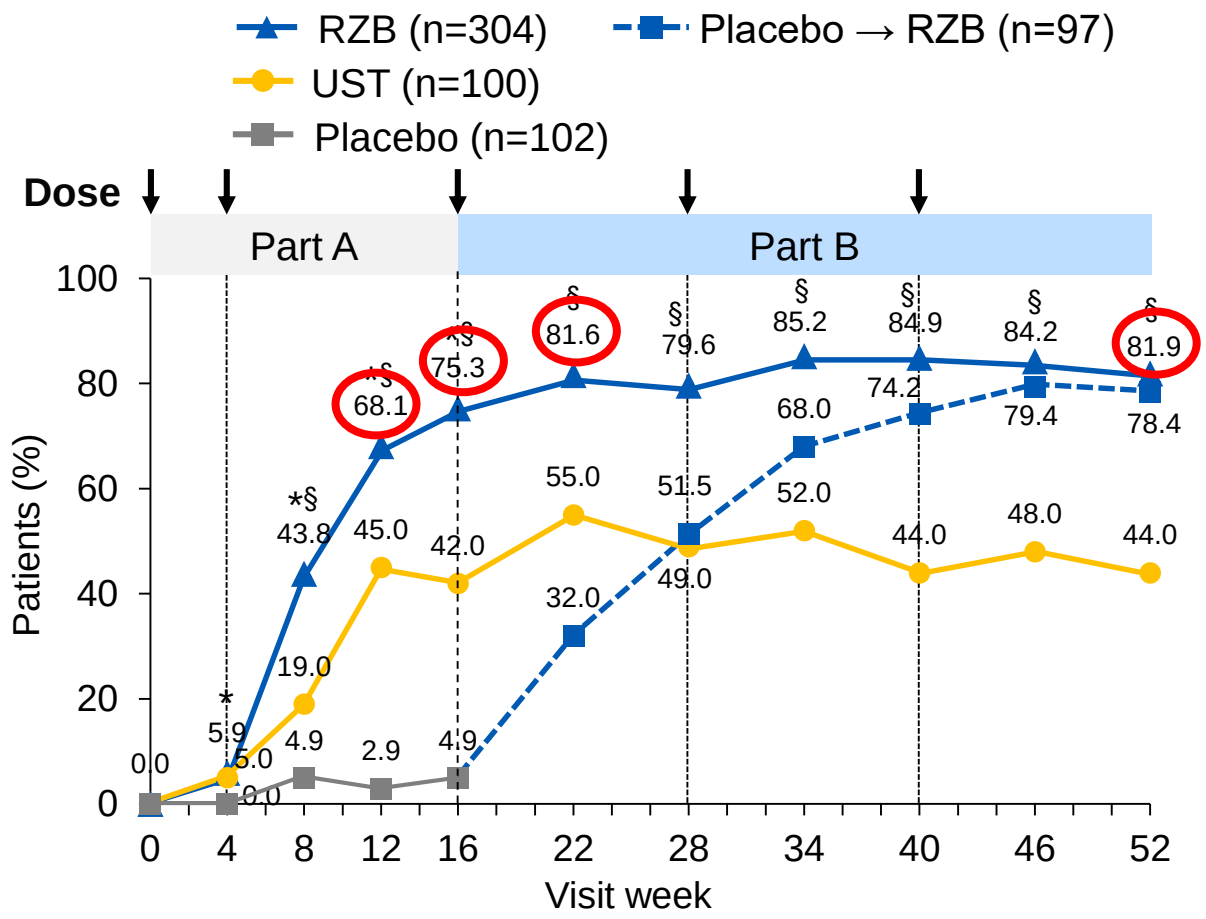
PASI response overtime - Tildrakizumab 100mg (N=327)



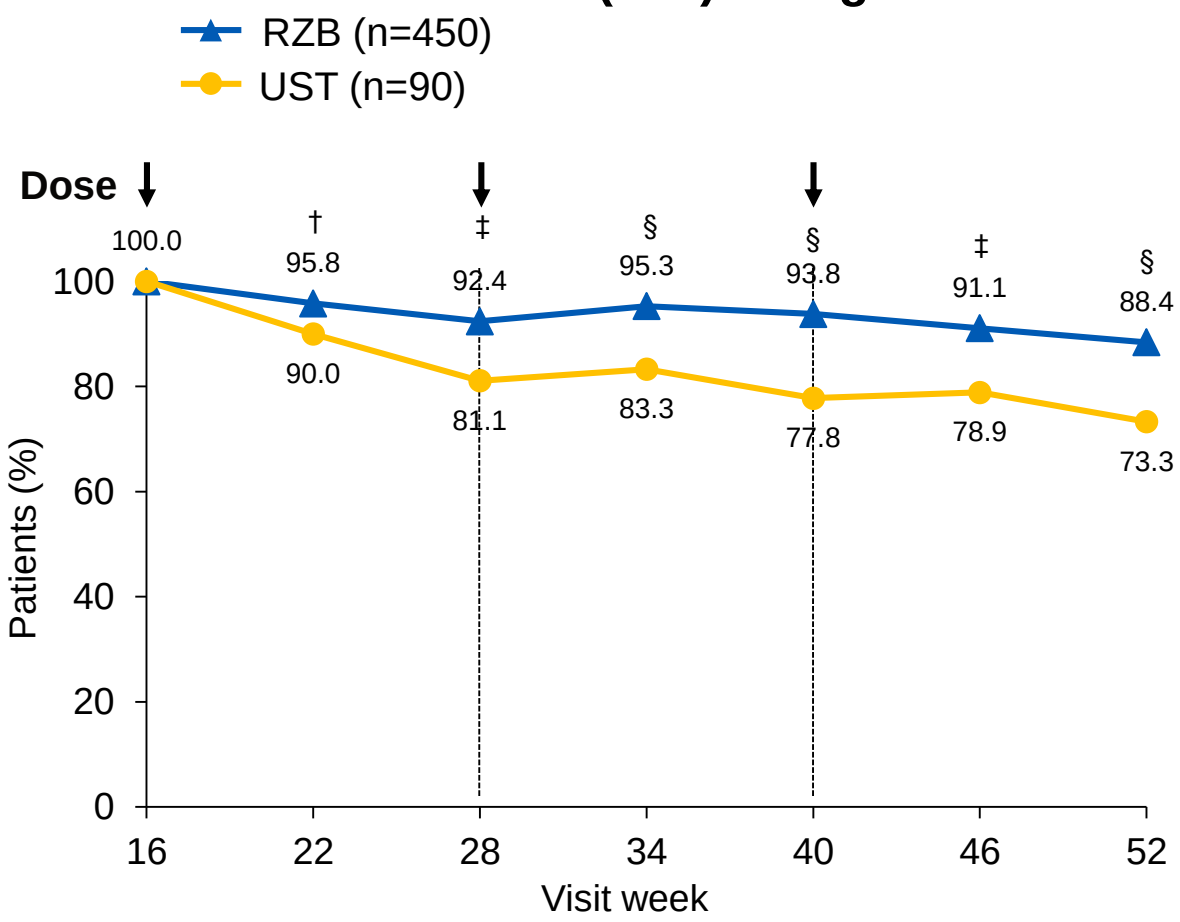
- Population: FAS 3 PASI75 responders on TIL 100mg
- Tildrakizumab was dosed at baseline, Week 4 and every 12 weeks thereafter
- No imputation of missing data (OC)

ultIMMa-1 and ultIMMa-2:
PASI 90 responses with risankizumab through Week 52

PASI 90 response over 52 weeks (NRI): ultIMMA-1



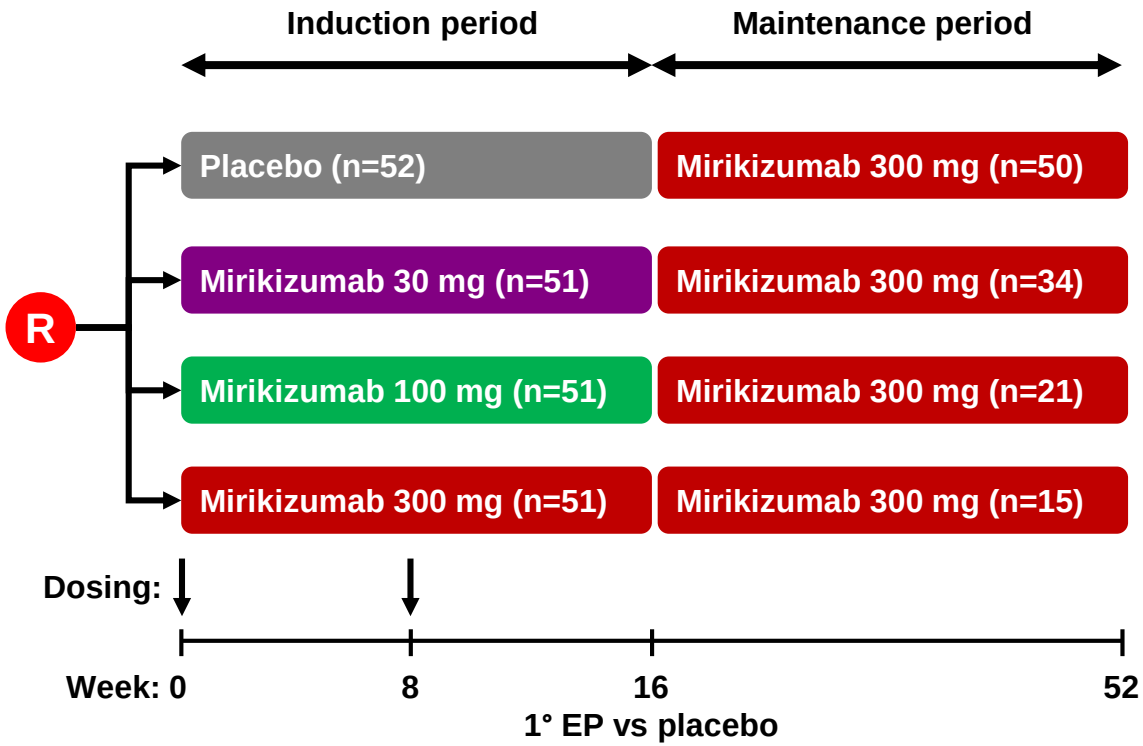
Maintenance of PASI 90 in those who achieved PASI 90 at w.16 (NRI): integrated

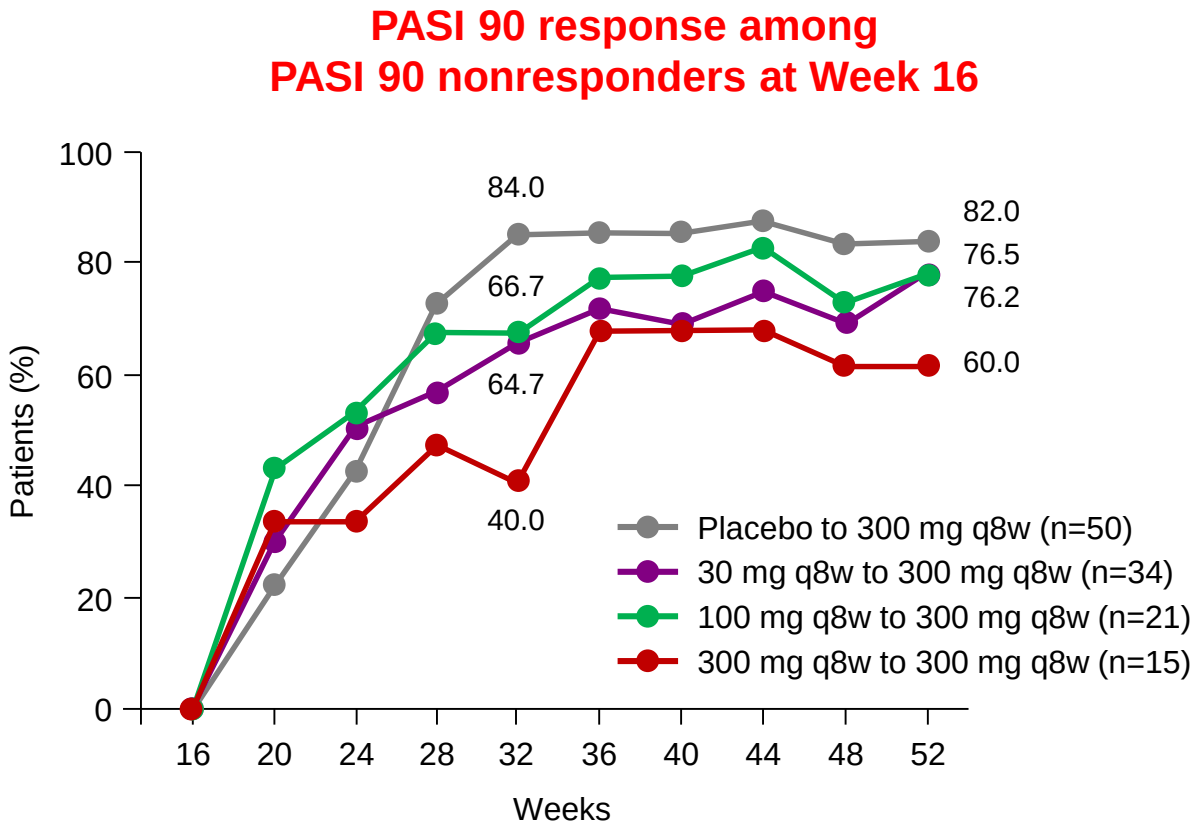


*P<0.001 vs placebo; †P<0.05, ‡P<0.01, §P<0.001 vs UST

Gordon KB, et al. AAD 2018, Late-breaking Research: Clinical Trials; Sponsored by AbbVie and Boehringer Ingelheim

Phase 2 trial: Response to mirikizumab at Week 52 among patients who did not achieve a PASI 90 response at Week 16





Missing data imputed using NRI

Papp KA, et al. EADV 2018, P1932 Sponsored by Eli Lilly and Company

Ustekinumab in adolescent patients age 12 to 17 years with moderate-to-severe plaque psoriasis: results of the randomized phase 3 CADMUS study.

Landells I, et al.

J Am Acad Dermatol. 2015;73(4): 594-603.

Pearl # 2 Ustekinumab approved for adolescents going to college

Ustekinumab package insert

Children and Adolescents 12 years and older and weighing more than 100 kg

90 mg subcutaneously; repeat dose 4 weeks later. Then, give 90 mg subcutaneously every 12 weeks starting at week 16.

Children and Adolescents 12 years and older and weighing 60 to 100 kg

45 mg subcutaneously; repeat dose 4 weeks later. Then, give 45 mg subcutaneously every 12 weeks starting at week 16.

Children and Adolescents 12 years and [redacted] and weighing less than 60 kg

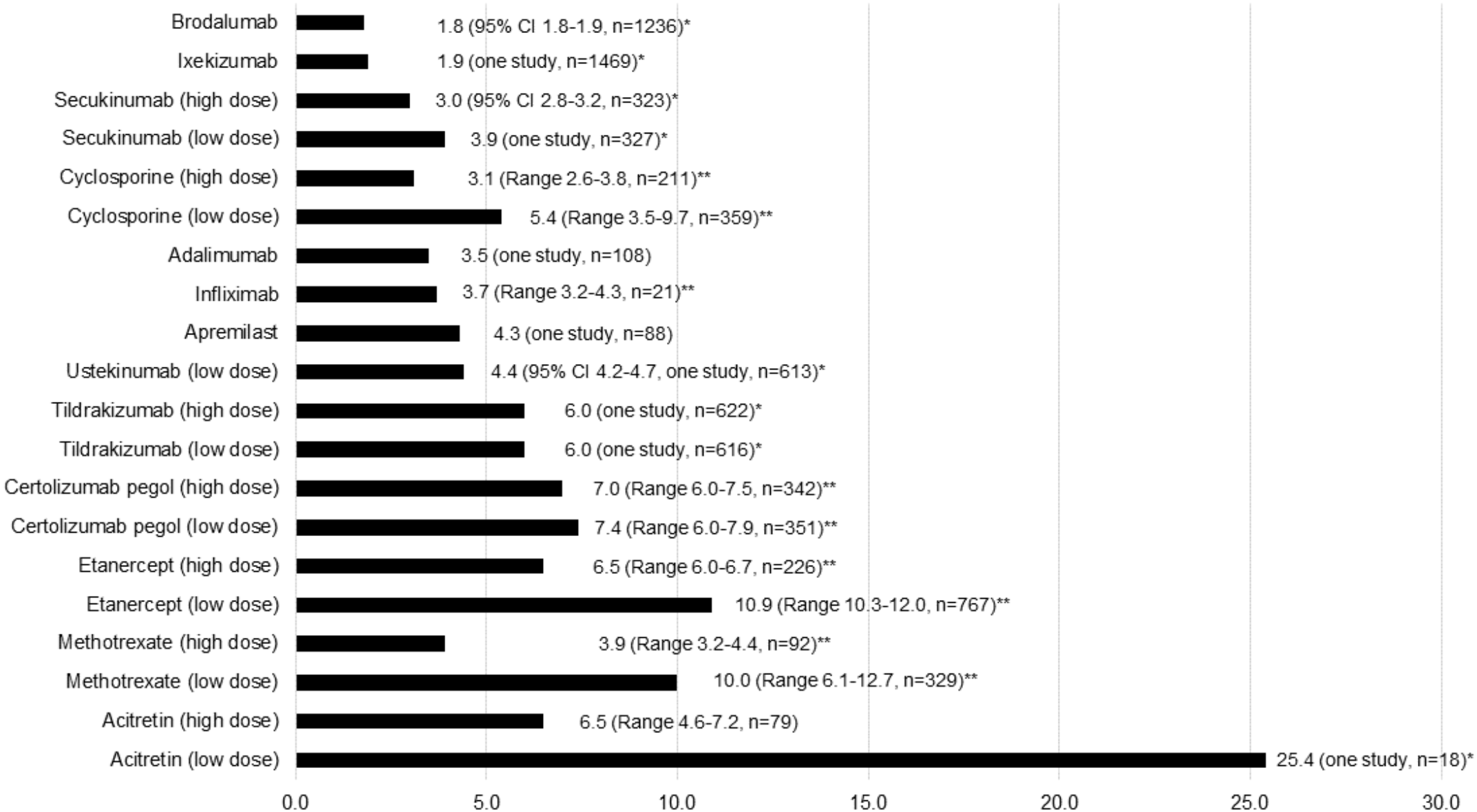
0.75 mg/kg subcutaneously; repeat dose 4 weeks later. Then, give 0.75 mg/kg subcutaneously every 12 weeks starting at week 16. For pediatric patients weighing less than 60 kg, the manufacturer provides specific weight based dose and volume to be removed from a single vial

Ustekinumab as therapy for psoriasis in a 2-year-old girl.

Min MS, et al.

J Eur Acad Dermatol Venereol. 2016;30(11):e109-10.

Time to Achieve 50% Improvement in PASI



Marked URGENT!

Dear Dr. Lebwohl,
I prescribed Cosentyx for a 175 pound patient with severe psoriasis. We showed her how to administer the shots on Monday. She called me on Friday to say that she had administered two shots each day from Monday through Friday and was now out of Cosentyx. What should I do?
Sincerely,
Dr. XXXXXX

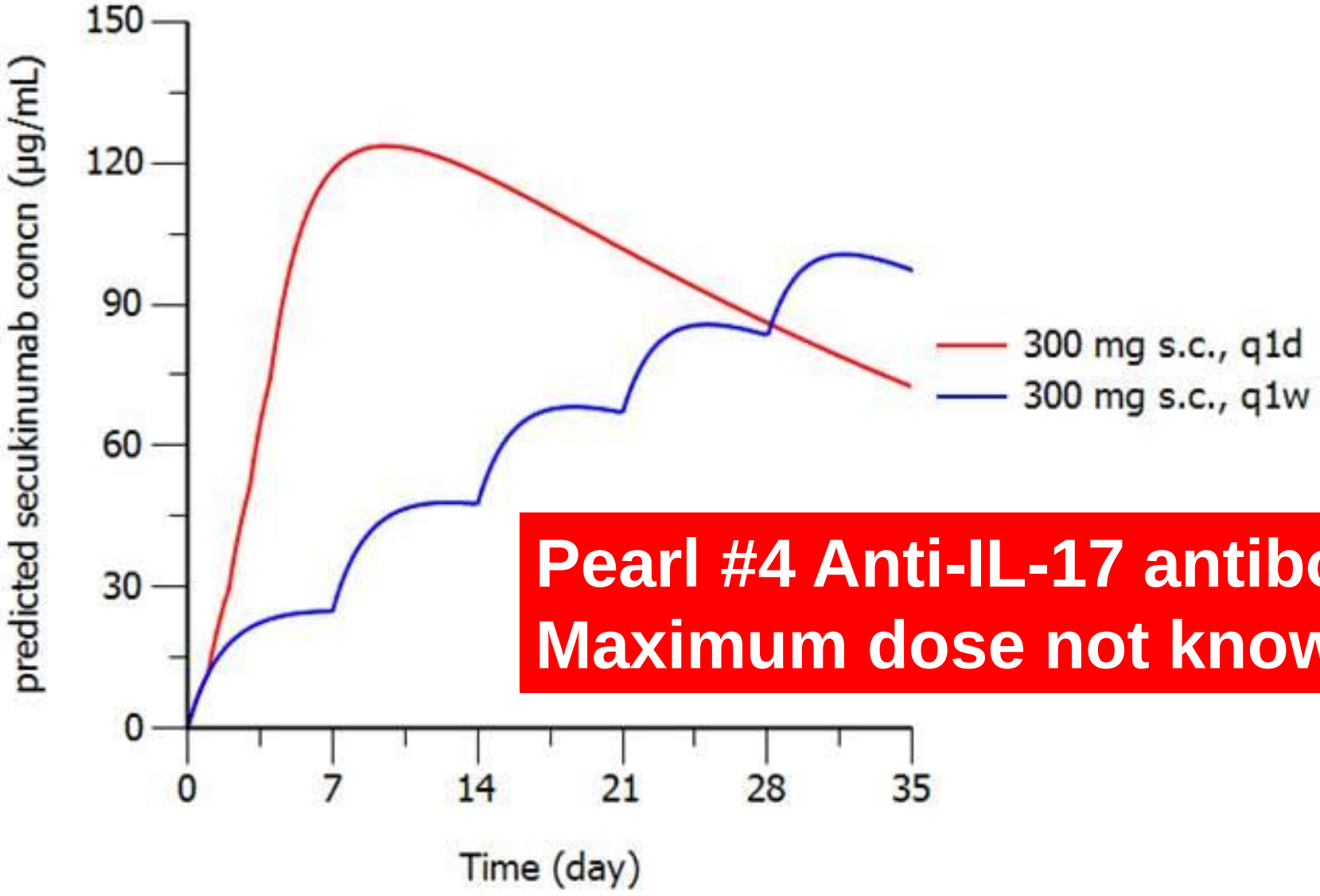
Inadvertent Overdose of Secukinumab, Consequences,and Cautions

Mark Taliercio, Dana Alessa, David B. Kessler,

J O U R N A L O F P S O R I A S I S A N D P S O R I A T I C A R T H R I T I S . 2016; V O L . 1.(4):147-9

Pearl #5

”In post-marketing database, we have 100+ cases of “overdoses” which are divided as unintentional, intentional and prescribed….there are no reports of unusual AEs – most times we don’t see any AE.” From Novartis



Pearl #4 Anti-IL-17 antibodies are safe
Maximum dose not known

Secukinumab package insert

10 OVERDOSAGE

Doses up to 30 mg/kg intravenously (i.e., approximately 2000 to 3000 mg) have been administered in clinical trials without dose-limiting toxicity. In the event of overdosage, it is recommended that the patient be monitored for any signs or symptoms of adverse reactions and appropriate symptomatic treatment be instituted immediately.

Treatment of Moderate to Severe Psoriasis With High-Dose (450-mg) Secukinumab: Case Reports of Off-Label Use.

Beecker J, Joo J. J Cutan Med Surg. 2018 Jan/Feb;22(1):86-88.

Immunity to infection in IL-17-deficient mice and humans.
Cypowyj S, Picard C, Maródi L, et al
Eur J Immunol. 2012;42:2246-2254.

Chronic mucocutaneous candidiasis in humans with inborn errors of interleukin-17 immunity.
Puel A, Cypowyj S, Bustamante J, et al.
Science. 2011;332(6025):65-68.

Oral fluconazole 150 mg single dose versus intra-vaginal clotrimazole treatment of acute vulvovaginal candidiasis.

Sekhavat L, Tabatabaii A, Tezerjani FZ.

J Infect Public Health. 2011;4:195-9.

Pearl #5 oral fluconazole for candidiasis

Late reactivation of spinal tuberculosis by low-dose methotrexate therapy in a patient with rheumatoid arthritis.

Binymin K, Cooper RG

Rheumatology (Oxford). 2001;40:341-2.

Methotrexate and reactivation tuberculosis.

Lamb SR.

J Am Acad Dermatol. 2004;51:481-2.

Pearl #6 IL-17 & IL-23 blockers not assoc. w/ TB reactivation

Impact of pulmonary and extrapulmonary tuberculosis infection in kidney transplantation: a nationwide population-based study in Taiwan.

Ou SM, et al

Transpl Infect Dis. 2012 Oct;14(5):502-9.

- *"independent risk factors for post-transplant TB included cyclosporine-based immunosuppressant agents during the first year after kidney transplantation (odds ratio [OR]: 1.98, P = 0.001)"*
- *"high proportion of extrapulmonary spread"*

Tuberculosis associated with infliximab, a tumor necrosis factor α -neutralizing agent.
Keane J, et al.
N Eng J Med 2001;345(15):1098-1104

- 70/147,000
- 48 $\underline{\leq}$ 3 infusions
- Test for TB!

Keane J, et al.
N Eng J Med 2001;345(15):1098-1104

- Tb has occurred with all of the TNF blockers
- Tb is commonly extrapulmonary in patients on TNF blockers
- Test for Tb before starting anti-TNF therapy

Secukinumab in patients with LTBI

- At BL, 25 subjects who received SKB had a past history of either pulmonary TB, LTBI or a positive TB test

  Tested negative for LTBI by QFN Gold at screening

  None were on anti-TB medication during the psoriasis study

- None experienced reactivation of TB; median SKB treatment duration was 363 days

Tsai T-F, et al. AAD 2015, P607 Sponsored by Novartis Pharma AG

- 1 TB-negative subject (at BL; in ERASURE) was diagnosed with LTBI following retest according to local guidelines (Argentina) on Day 141 while on SKB 150 mg; treated with isoniazid 300 mg daily and completed the study without SKB dose interruption

Secukinumab shows no evidence for reactivation of previous or latent TB infection in psoriasis patients: Pooled Phase 3 safety

Tsai T-F, et al. AAD 2015, P607 Sponsored by Novartis Pharma AG

No reactivation of tuberculosis in psoriasis patients with latent tuberculosis infection while on ixekizumab treatment: a report from 11 clinical studies

Elisabeth Riedl[1,2], Stefan Winkler[3], Wen Xu[2], Noah Agada[2], Mark G Lebwohl[4]

Safety in Psoriasis Patients with Latent Tuberculosis (TB) Treated with Guselkumab and Anti-TB Treatments in the Phase 3 VOYAGE Trials

Luis Puig, Tsen-fangTsai, Tina Bhutani, Jonathan Uy, Paraneedharan Ramachandran, Michael Song, Yin You, Melinda Gooderham, Mark Lebwohl

130 patients randomized to PBO, GUS or ADA at baseline tested positive for LTBI & received concomitant anti-TB treatments.

No cases of TB reactivation

Presented at FC18

Etanercept therapy for toxic epidermal necrolysis.

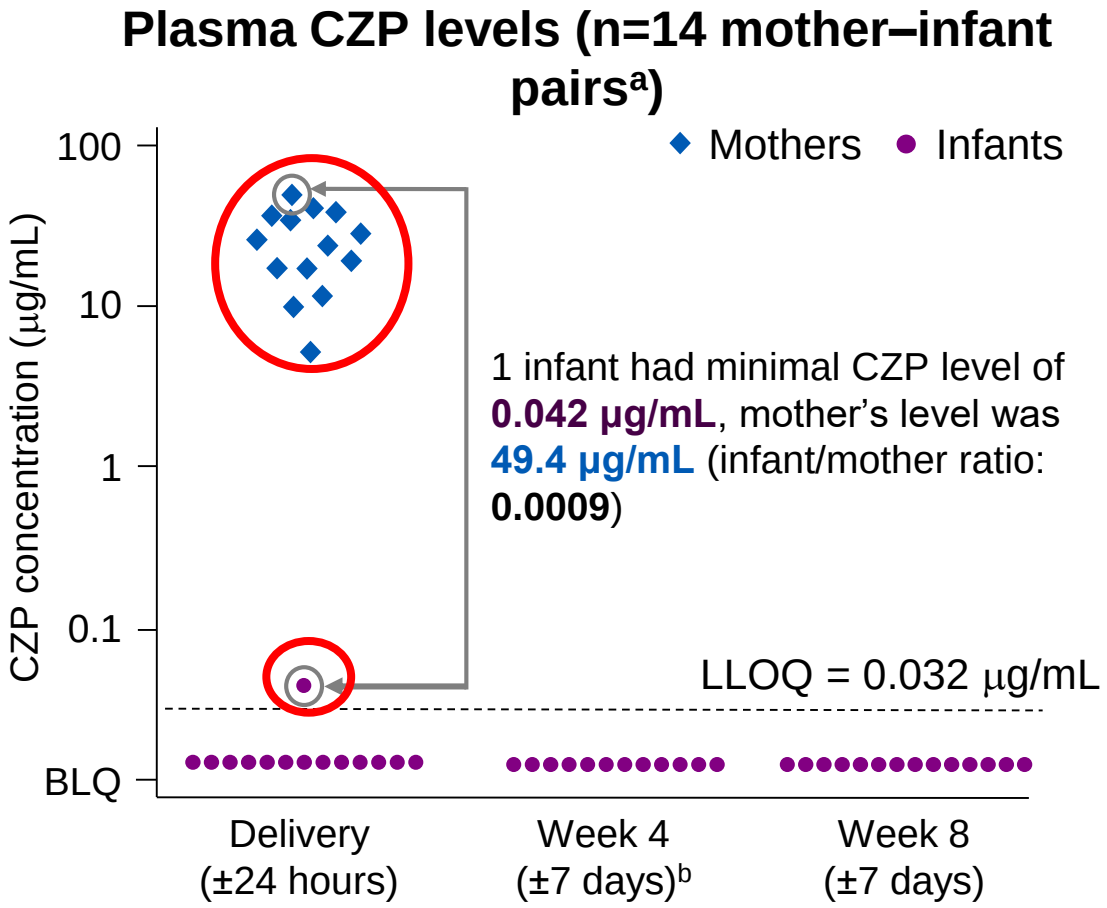
Paradisi A, et al.

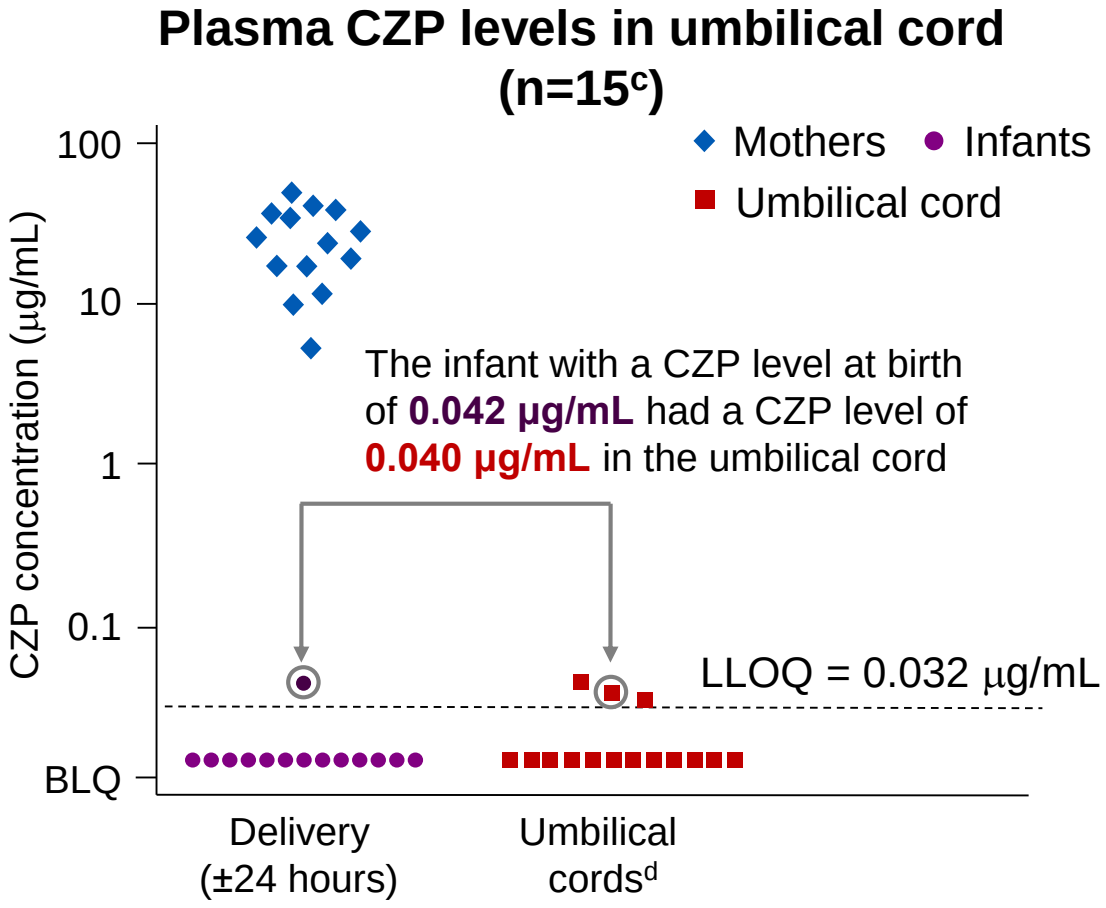
***J Am Acad Dermatol.* 2014;71(2):278-83.**

- 10 patients
- Single 50mg dose
- Median time to healing was 8.5 days

Pearl #10 Certolizumab doesn't cross placenta

Maternal & infant plasma & umbilical cord levels of certolizumab



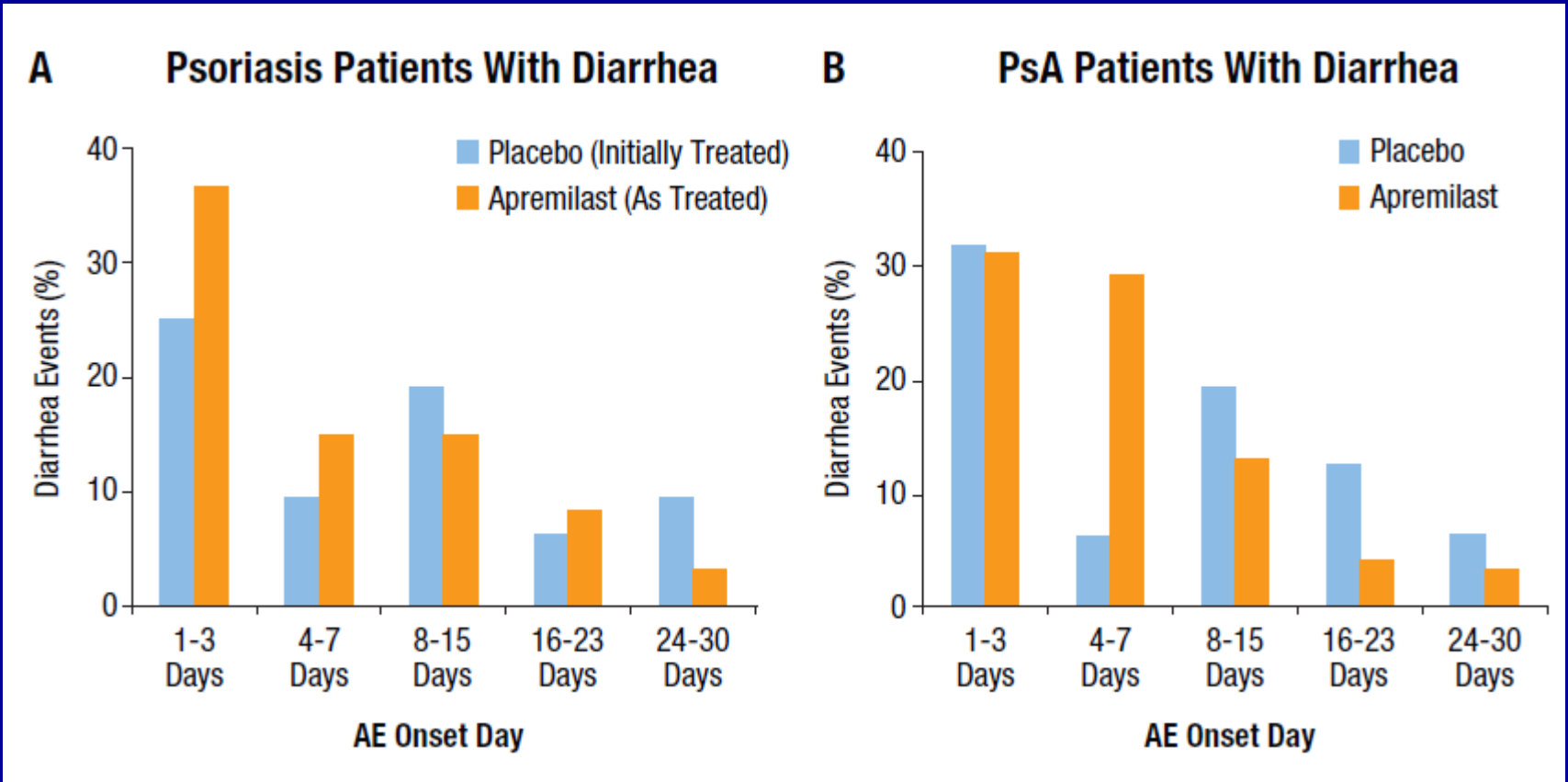


[a]2/16 infant samples excluded from per protocol analysis set (1 missing data at birth, 1 due to implausible PK data [ie, data not consistent with pediatric CZP PK model, based on expected range of clearance, volume of distribution, and subsequent elimination $t_{½}$]); [b]2 samples not collected; [c]1 umbilical cord excluded due to missing data; [d]Umbilical cords were collected within 1 h of delivery. BLQ, below limits of quantitation of the assay; LLOQ, lower limit of quantitation

Kimball A, et al. EADV 2017, FC04.03 Sponsored by UCB Pharma

Time to Onset of Diarrhea*

- Pooled analysis of psoriasis (ESTEEM 1 & 2) and psoriatic arthritis (PALACE 1-3) trials

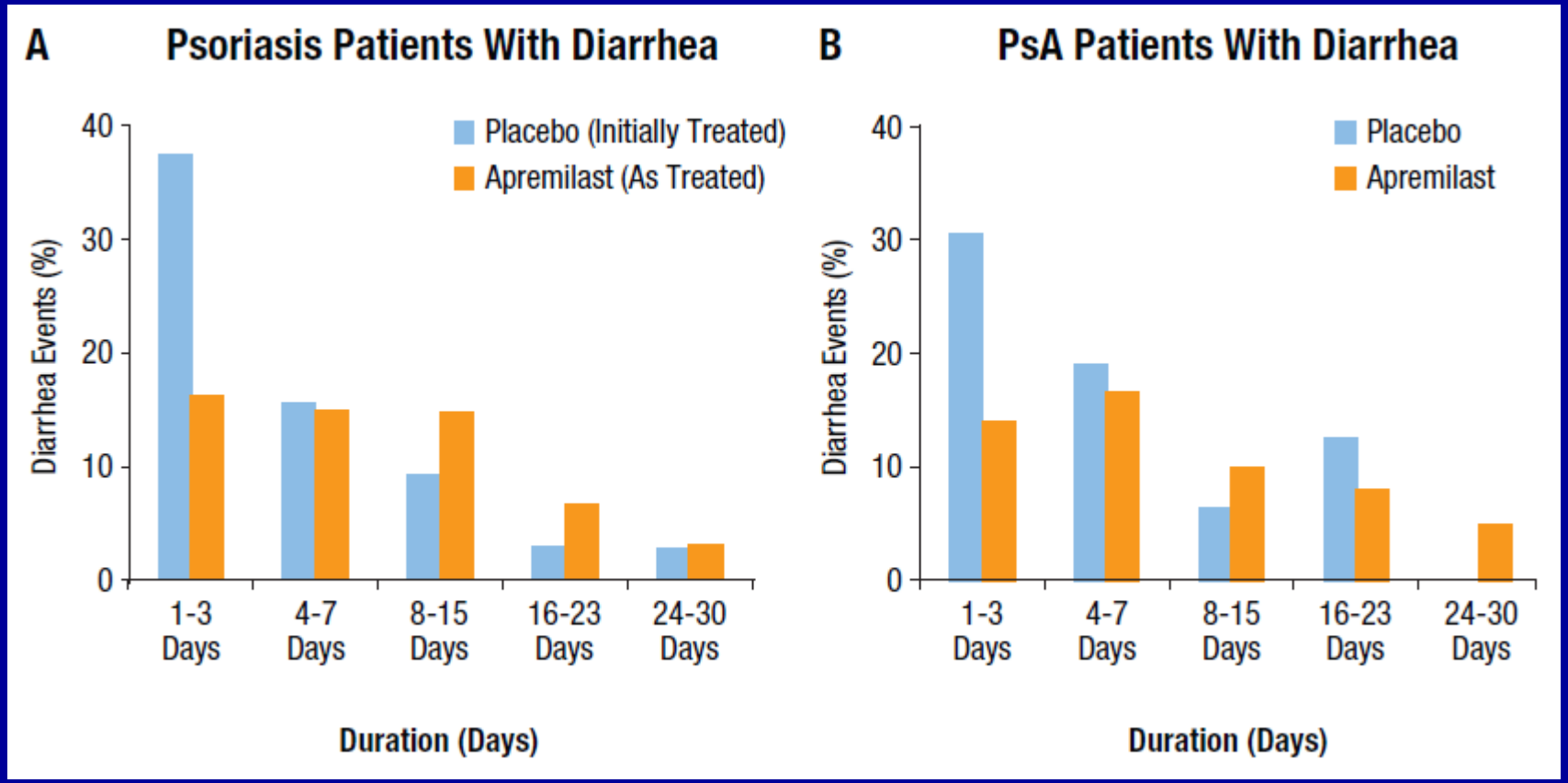


*Percentages in each category of onset are based on the total number of events in each treatment group. Subjects who were randomized to placebo and then switched to apremilast could contribute events to both treatment groups.

Pearl #11 APR diarrhea starts early, finishes quickly & can be minimized with OTC treatments

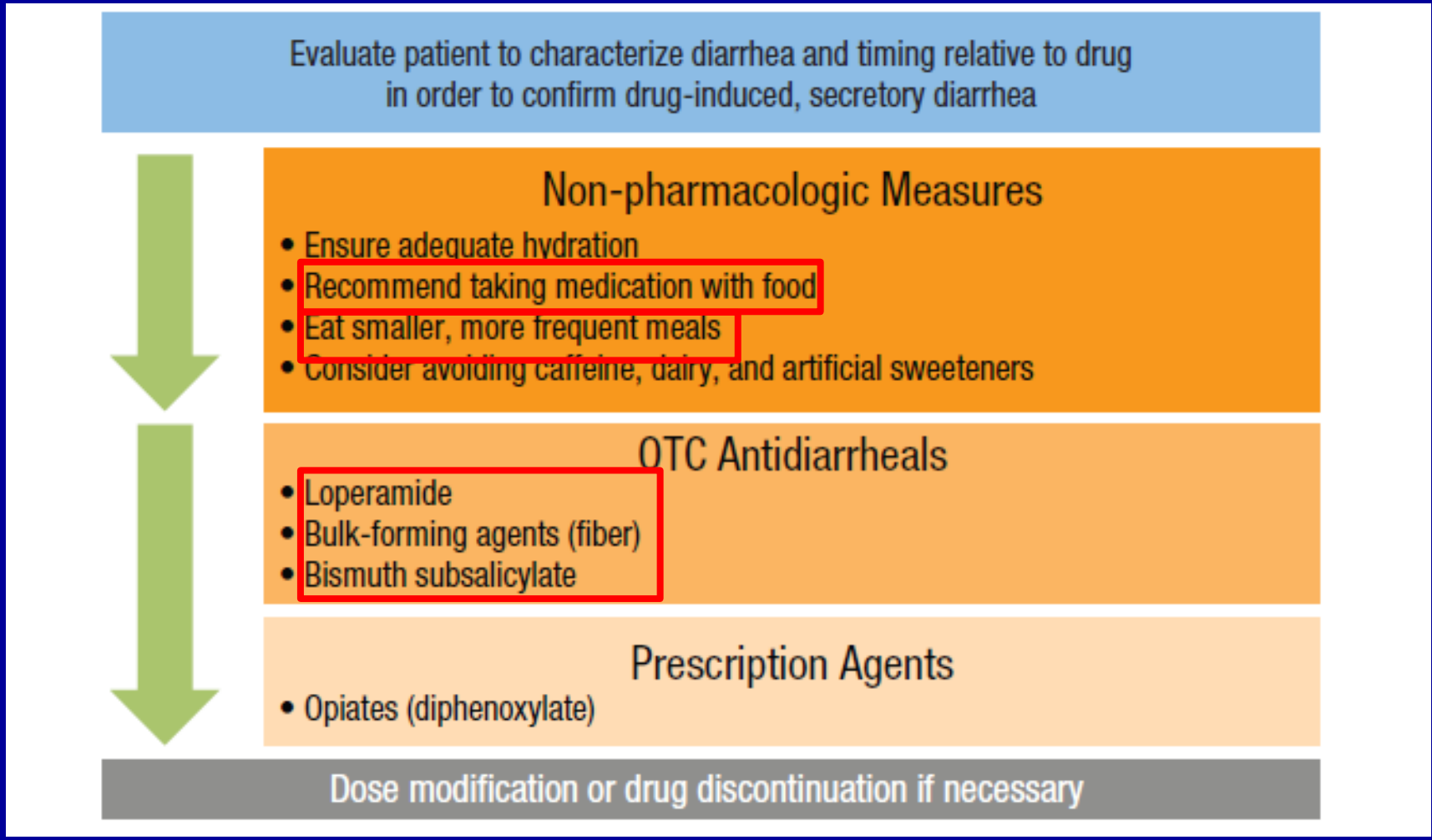
Duration of Diarrhea*

- Pooled analysis of psoriasis (ESTEEM 1 & 2) and psoriatic arthritis (PALACE 1-3) trials



*Percentages in each category of duration are based on the total number of events in each treatment group and exclude patients with missing or uninterpretable data. Subjects who were randomized to placebo and then switched to apremilast could contribute events to both treatment groups.

Strategies for Managing Diarrhea



- Infliximab
- Ustekinumab
- Guselkumab, Tildrakizumab,
- Certolizumab

Pearl #12 For patients with high copays in their pharmacybenefits, we now have medications that can be administered in the office

CERTOLIZUMAB

At-home Administration

CZAB Prefilled Syringe (PFS)

May be appropriate for patients who the physician determines

- Are able to self-inject and are appropriately trained
- Have access to a trained caregiver

OR

In-office Injection

CZAB Lyophilized Powder for Reconstitution (LYO)

May be appropriate for patients who the physician determines

- Are not able to self-inject
- Do not have access to a trained caregiver

Lyophilized formulation for administration by a health care professional









- Gottlieb, A
- Krueger, G
- Menter, A
- Papp, K
- Gelfand, J
- Gisondi, P
- Krueger, J
- Reich, K
- Kimball, A
- Smith, CH
- Feldman, S
- Gordon, K




- Griffiths, CEM
- Kirby, B
- Saurat, JH
- Neimann, A
- Sterry, W
- Pathirana, D
- Sampogna, F
- Van de Kerkhof, PCM
- Leonardi, C
- Raychaudhuri, SP
- Kragballe, K.
- Prodanovich, S