The incidence of treatment-emergent adverse events (AEs) was comparable between APR and PBO during the PBO-controlled period (78.8% vs 71.8%, respectively). Serious AEs were observed in 3 APR pts (migraine, oral ulcer flare, genital ulcer, arthralgia, soft tissue injury) and 4 PBO pts (diarrhoea, genital and fungal infections, oral ulcer flare, acne, acute febrile neutrophilic dermatosis, erythema multiforme).

Endpoints	P Value	Adjusted Treatment Difference (or HR)	APR vs. PBO (LS Mean, Median Time or %)
AUC for the number of OU from baseline through Week 12	<0.0001	-92.6	129.5 vs. 222.1
Change from baseline in the pain of OU as measured by VAS at Week 12	<0.0001	-24.8	-40.7 vs. -15.9
Proportion of subjects achieving OU resolution by Week 6 who remain OU free for ≥6 additional weeks (maintenance of OU resolution)	<0.0001	25.1%	29.8% vs. 4.9%
Time to OU resolution, during the PBO-Controlled Treatment Phase	<0.0001	HR = 2.400	Median time in weeks: 2.1 vs. 8.1
Proportion of subjects achieving resolution of OU at Week 12	<0.0001	30.6%	52.9% vs. 22.3%
Proportion of subjects achieving resolution of genital ulcers at Week 12 for subjects who had genital ulcers at baseline	0.1100	28.4%	70.6% vs. 41.2%

Conclusions: APR effectively reduced the number and pain of OU, improved time to oral ulcer resolution, and maintained the resolution of OU, the most common manifestation of BS. Favourable treatment effects were also observed for genital ulcer resolution. The safety profile was consistent with the known safety profile of APR.

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OP0083 TEMPORAL TRENDS AND MORTALITY OF HOSPITALISED PATIENTS WITH ADULT ONSET STILL'S DISEASE: A NATIONWIDE ESTIMATE

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Background: There is a dearth of epidemiological studies on Adult Onset Still's Disease (AOSD). Majority of studies are from single centres or are regional. The largest AOSD epidemiological study till date describes 512 patients.¹

Objectives: To describe the demographics, complications, mortality and trends of hospitalised patients with AOSD in United States. Also, to understand the factors associated with mortality in these patients.

Methods: All adult (>18 years) hospitalised patients between 2009 and 2013 from a nationwide inpatient sample (NIS) database were captured. AOSD patients were identified using the ICD-9 code 714.2. Patients also coded for Rheumatoid Arthritis, Lupus, Myositis, Polymyalgia Rheumatica, Ankylosing Spondylitis and Psoriatic Arthritis were excluded. This was done in order to capture patients with strictly AOSD. NIS is the largest all-payer inpatient care database in the United States with approximately 8 million hospitalizations each year. Discharge weights were used to enable nationwide estimates. Descriptive statistics were represented as means/medians for continuous and as frequencies and percentages for categorical variables. A survey weighted logistic regression model was used to describe the associations with in-hospital death.

Results: Between 2009 and 2013, 5,820 AOSD patients were hospitalised (table 1). AOSD patients had a mean age of 53.6 (SE - 0.61) years, 3817 (65.6%) were females. The racial/ethnic distribution showed that 56% white, 15% African American, 11.7% Hispanic and 3% Asian patients were affected. Over the years, the number of white patients that are hospitalised seems to have increased. 37.6% were hospitalised in urban teaching hospitals. 100 (1.7%) of patients developed Macrophage Activating Syndrome (MAS). 66 (1.1%) patients had disseminated intravascular coagulation (DIC) and 25 (0.4%) had thrombotic thrombocytopenic purpura (TTP). Mean length of stay was 6.9 days. There were 154 inpatient deaths in 5 years (mortality 2.6%). The patients who died in the hospital had a higher mean age of 62.4 (SE- 3.1) years, had a higher proportion of Asians

(13.9%) and had increased number of comorbid conditions. Asians had 6.4 times the risk of in-hospital death compared to Whites. The risk for in-hospital death is 30 times higher if a AOSD patient had concurrent DIC.

Abstract OP0083 – Table 1 AOSD characteristics

Variables, n (%) / Mean (SE) when specified	2009 n = 846	2010 n = 995	2011 n = 1434	2012 n = 1280	2013 n = 1265	Total N = 5820
Age in Years, Mean (SE)	53.4 (1.3)	52.3 (1.6)	54.9 (1.1)	52.8 (1.2)	53.3 (1.1)	53.6 (0.6)
Female	520 (61.4%)	645 (64.8%)	892 (62.2%)	570 (68%)	890 (70.4%)	3817 (65.6%)
Race						
White	437 (51.6%)	515 (51.8%)	819 (57.1%)	760 (59.4%)	730 (57.7%)	3261 (56%)
Black	117 (13.9%)	168 (16.9%)	243 (16.9%)	180 (14.3%)	165 (13%)	874 (15%)
Hispanic	96 (11.3%)	120 (12%)	142 (9.9%)	120 (9.4%)	205 (16.2%)	683 (11.7%)
Asian	25 (3%)	47 (4.7%)	29 (2%)	25 (2%)	50 (4%)	175 (3%)
Native American + Others	21 (2.5%)	20 (2%)	79 (5.5%)	80 (6.3%)	35 (2.8%)	236 (4.1%)
Missing values	150 (17.7%)	125 (12.5%)	122 (8.5%)	115 (9%)	80 (6.3%)	591 (10.2%)
Insurance						
Medicare	311 (36.7%)	338 (34%)	589 (41.1%)	525 (41%)	570 (45.1%)	2333 (40.1%)
Medicaid	104 (12.3%)	157 (15.7%)	170 (11.9%)	145 (11.3%)	160 (12.6%)	736 (12.6%)
Private including HMO	351 (41.5%)	373 (37.5%)	474 (33.1%)	475 (37.1%)	375 (29.6%)	2048 (35.2%)
Self-pay	60 (7.1%)	79 (7.9%)	95 (6.6%)	85 (6.6%)	80 (6.3%)	398 (6.8%)
No charge/other	20 (2.4%)	49 (4.9%)	98 (6.8%)	50 (3.9%)	75 (5.9%)	292 (5%)
Length of stay (days), Mean (SE)	6.1 (0.5)	8.7 (1.1)	7 (0.4)	6.6 (0.4)	6.3 (0.4)	6.9 (0.3)
Total Charges in USD, Mean (SE)	\$33,152 (2406)	\$25,501 (3024)	\$29,633 (2450)	\$32,080 (2590)	\$31,367 (2137)	\$30,857 (516)
Median household income						
\$1 - \$3999	205 (24.2%)	276 (27.7%)	294 (20.5%)	340 (26.6%)	315 (24.9%)	1430 (24.6%)
\$3999 - \$4999	217 (25.7%)	222 (22.3%)	253 (17.6%)	255 (19.9%)	315 (24.9%)	1262 (21.7%)
\$4999 - \$5999	166 (19.6%)	275 (27.7%)	370 (25.8%)	325 (25.4%)	305 (24.1%)	1442 (24.8%)
\$6000+	236 (27.9%)	188 (18.9%)	498 (34.7%)	335 (26.2%)	315 (24.9%)	1572 (27%)
Bed size of the hospital						
Small	51 (6%)	78 (7.8%)	123 (8.5%)	175 (13.7%)	140 (11.1%)	566 (9.7%)
Medium	169 (20%)	158 (15.9%)	230 (16.1%)	305 (23.8%)	270 (21.3%)	1133 (19.5%)
Large	341 (40.3%)	384 (38.5%)	462 (32.2%)	640 (50%)	610 (48.2%)	2436 (41.9%)
Missing values	285 (33.7%)	375 (37.7%)	620 (43.2%)	160 (12.5%)	245 (19.4%)	1685 (29%)
Location/teaching status of hospital						
Rural	60 (7.1%)	93 (9.4%)	88 (6.2%)	65 (5.1%)	100 (7.9%)	406 (7%)
Urban non-teaching	233 (27.8%)	240 (24.2%)	379 (26.4%)	345 (27%)	340 (26.9%)	1538 (26.4%)
Urban teaching	267 (31.6%)	286 (28.8%)	347 (24.2%)	710 (55.5%)	580 (45.8%)	2191 (37.6%)
Missing values	285 (33.7%)	375 (37.7%)	620 (43.2%)	160 (12.5%)	245 (19.4%)	1685 (29%)

Table 2: Factors associated with In-Hospital Death

Variable	Odds ratio (95% CI)	p-value
Age	1.03 (0.99 - 1.06)	0.154
Female	1.32 (0.5 - 3.49)	0.579
Race		
White	Reference	
Asian	6.39 (1.77 - 23.1)	0.005
Black, Hispanic and Others	0.84 (0.26 - 2.75)	0.772
Number of Chronic conditions	1.20 (1.05 - 1.37)	0.006
Median Household income		
\$1 - \$3999	Reference	
\$3999 - \$4999	1.96 (0.41 - 9.29)	0.398
\$4999 - \$5999	0.95 (0.16 - 5.67)	0.958
\$6000+	2.57 (0.57 - 11.62)	0.221
Disseminated/Intravascular Coagulation	29.69 (5.5 - 160.4)	<0.001

Conclusions: In hospitalised American AOSD patients, the average age was higher than previously described in cross sectional studies. This may indicate an ageing population with a higher number of comorbidities that justify hospitalisation. More patients were in large or urban teaching hospitals compared to small or rural hospitals. In-hospital death was associated with increased comorbid conditions and was significantly higher among Asians and patients with DIC. To our knowledge, this is the largest epidemiological study of AOSD.

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OP0084 SERUM FIBROBLAST GROWTH FACTOR 2 IS A USEFUL BIOMARKER TO DISTINGUISH ADULT ONSET STILL DISEASE FROM SEPSIS

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Background: The precise cytokine networks in the serum of individuals with adult onset still disease (AOSD) that are associated with its pathogenesis have been unknown. Serum levels of interleukin (IL)-1β, IL-6 and IL-18 have been reported as useful serum biomarkers for diagnosis and disease evaluation among AOSD patients,¹⁻² but these cytokines are also elevated in other inflammatory diseases including severe infection.

Objectives: We attempted to identify specific biomarkers to distinguish AOSD from sepsis.

Methods: We measured serum levels of 45 cytokines in 66 AOSD patients, 17 sepsis patients and 133 age-matched controls by multi-suspension cytokine array. Japan College of Rheumatology-certified rheumatologists diagnosed with AOSD based on the Yamaguchi criteria. Cytokines were ranked by their importance by a multivariate classification algorithm. We performed a logistic regression analysis to determine specific biomarkers for discriminating AOSD from sepsis patients. To identify specific molecular networks, we performed a cluster analysis of each cytokine.

Results: Serum fibroblast growth factor 2 (FGF-2), vascular endothelial growth factor (VEGF), granulocyte-colony stimulating factor (G-CSF), and IL-18 levels were significantly elevated in the AOSD group versus the sepsis group. Multivariate classification algorithms followed by a logistic regression analysis revealed that the measurement FGF-2 distinguished AOSD patients from sepsis patients with the highest accuracy (cut-off value=28.5 pg/mL, sensitivity 100%, specificity 88.2%, accuracy 96.7%).

Abstract OP0084 – Table 1

variables (AOSD vs sepsis)	sensitivity	specificity	accuracy	AUC	AIC
FGF-2	1.000	0.882	0.967	0.972	24.50
IL-18	0.930	0.824	0.900	0.895	50.90
G-CSF	0.837	0.706	0.800	0.721	75.30
FGF-2 + IL-18	0.977	0.941	0.967	0.986	21.70

Conclusions: We have demonstrated that FGF-2 can be the best biomarker for differential diagnosis between AOSD and sepsis based on the measurement of multiple cytokines. Although the differential diagnosis between rheumatic diseases and infectious conditions is a great challenge in clinical practice, these findings help to improve the diagnostic performance of AOSD in daily practice.

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OP0085

SAFETY OF LONG-TERM (UP TO 6 YEARS) CANAKINUMAB THERAPY (<2, 2–<4 AND 4–<8MG/KG) IN PATIENTS AGED <4 TO 65 YEARS FROM BETA-CONFIDENT REGISTRY

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Background: The β -confident registry (NCT01213641), a multicenter, long-term (6 years; yrs), prospective, observational study has demonstrated the safety and effectiveness of canakinumab (CAN) in real life CAPS patients (pts) according to their phenotypes.¹ Here we report long-term safety of CAN in pts with CAPS and other autoinflammatory syndromes, enrolled in the β -confident registry, according to their age and dose administered.

Objectives: To monitor the long-term safety of different CAN doses (<2, 2–<4 and 4–<8 mg/kg) across different age groups (<4 to 65 years) in pts with CAPS and other autoinflammatory syndromes.

Methods: Cumulative safety data were reported as exposure adjusted incidence rate per 100 pt-years (IR/pyr) from the enrollment of the first pt (November 2009) until end of study (December 2015). Pts were followed up for at least 1 year. The protocol did not mandate any visits or procedures. All observed and reported AEs and SAEs were recorded for the following age groups:<4-, 4–<12-, 12–<18-, 18–<65 and $\geq$ 65 years.

Results: Of the 285 pts enrolled, 21% (n=60) discontinued the study mainly due to loss of follow-up (35%, n=21) followed by AEs (10%, n=6), poor efficacy (8%, n=5) and pt preference (3%, n=2). In total, 1114 AEs and 155 SAEs were reported in 223 pts (110.7 IR/100 pyr) and 83 pts (15.4 IR/100 pyr), respectively. Exposure adjusted incidence rate of AEs (IR/100 pyr) among pts in the <4 and 4–<12 year age group, were lowest in the pts who received <2 mg/kg dose (130.3 and 59.7, respectively) compared to pts who received 2–<4 mg/kg (450.8 and 169.6, respectively) and 4–<8 mg/kg (121.5 and 90.0, respectively) CAN dose. In pts

aged 12–<18 years, IR/100 pyr were lowest in pts who received 2–<4 mg/kg dose (118.2) compared to pts who received <2 mg/kg (169.6) and 4–<8 mg/kg (139.4) CAN dose. Similarly, in the 18–<65 year age group, IR/100 pyr were lowest in pts who received <2 mg/kg dose (93.1) compared to pts who received 2–<4 mg/kg (100.7) and 4–<8 mg/kg (154.4) CAN dose. In the $\geq$ 65 year age group, IR/100 pyr decreased with increase in dose (<2 mg/kg: 26, 2–<4 mg/kg: 17). Overall, 5, 13, 19, 84 and 7 SAEs were reported in <4-, 4–<12-, 12–<18-, 18–<65 and $\geq$ 65 year age groups, respectively. One death (metastatic rectal adenocarcinoma in a 76-yr-old MWS patient) was reported.

Conclusions: The β -confident registry is the largest CAPS cohort documented in a registry. In general, incidence of adverse events in each dose group increased with age (<4–<65 years). However, no meaningful pattern of AEs was observed with increased dose for each age group. Long-term treatment with canakinumab demonstrated favourable safety profile which was similar to that reported earlier² and is well tolerated in CAPS patients aged <4 to 65 years.

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OP0086

LONG-TERM EFFICACY AND SAFETY OF ADALIMUMAB BY IMMUNOSUPPRESSANT USE IN PATIENTS WITH NON-INFECTIOUS UVEITIS IN THE VISUAL III TRIAL

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Objectives: To evaluate the long-term safety and efficacy of adalimumab in patients with non-infectious intermediate, posterior, or panuveitis, by immunosuppressant (IMM) use.

Methods: Adult patients who completed or had a treatment failure in the VISUAL I/II trials were eligible to enter the Phase III open-label extension study, VISUAL III. Patients received adalimumab 40 mg every other week in VISUAL III, and interim follow-up data were collected through Weeks 0 to 78. Efficacy measures assessed included proportion of patients with: no active inflammatory lesions in both eyes; anterior chamber (AC) cell grade $\leq$ 0.5 + in both eyes; vitreous haze (VH) grade $\leq$ 0.5 + in both eyes; quiescence (defined as no active inflammatory lesions AND AC cell grade $\leq$ 0.5 + AND VH grade $\leq$ 0.5+); and steroid-free quiescence. Mean steroid dose and mean best corrected visual acuity (BCVA) were also assessed. Missing data were imputed using non-responder imputation for categorical endpoints, last observation carried forward for continuous variables, and as-observed for steroid dose. Efficacy was analysed by IMM (methotrexate, cyclosporine, mycophenolate mofetil, or azathioprine) use. Adverse events (AEs) were reported from first adalimumab dose in VISUAL III through interim cut-off date of Oct 31, 2016, with analysis by IMM use.

Results: Of 371 patients included in the intent-to-treat analysis, 117 (31.5%) were using IMM at VISUAL III baseline (BL) and 30 (8.1%) started IMM during VISUAL III. The proportion of patients with quiescence improved over time irrespective of IMM use; compared with Week 0, 95% confidence intervals were non-overlapping at most time points (figure 1). Numeric improvements were achieved in steroid-free quiescence, steroid dose reduction, and BCVA, with no difference by IMM use. No new safety signals were detected through 130 weeks of treatment and AE rates were generally consistent with previous VISUAL trials; some AEs, notably serious infections and malignancies, were slightly higher with concomitant IMM use.