Supplementary Figure 1. Treatment Sequencing Algorithm

- **Infliximab**
  - TDM
    - ADA
    - Low TC
    - Adequate TC
      - Ustekinumab
      - Adalimumab
        - TDM
          - Low TC
          - ADA
          - Adequate TC
            - Adalimumab Dose Optimization
              - TDM
                - Low TC
                - ADA
                - Adequate TC
                  - Adalimumab Dose Optimization
                    - TDM
                      - Low TC
                      - ADA
                      - Adequate TC
                        - Adalimumab Dose Optimization
                          - Active Disease
                            - If no prior exposure to Ustekinumab

                      - Active Disease
                        - Ustekinumab
                          - TDM
                            - ADA
                            - Adequate TC
                            - Low TC
                              - Ustekinumab Dose Optimization
                                - Active Disease

                      - Active Disease
                        - Vedolizumab
                          - ADA
                          - Adequate TC
                          - Low TC
                            - Active Disease
                              - Vedolizumab Dose Optimization
                                - Active Disease

                      - Active Disease
                        - Ustekinumab Dose Optimization
                          - Active Disease
Supplementary Figure 1: Treatment Sequencing Algorithm

Notes: TDM: therapeutic drug monitoring; TC: trough concentration; ADA: antidrug antibody; red boxes are disease activity assessments with active disease (TDM only done reactivity in response to persistent disease activity); green boxes are dose optimization of biologics (2 attempts at dose optimization for infliximab and adalimumab – for dose and interval; 1 attempt at dose optimization for ustekinumab and vedolizumab – interval only). Adequate trough concentration for infliximab: 5 ug/ml, adalimumab: 7.5 ug/ml, vedolizumab 12 ug/ml; ustekinumab 1ug/ml.