Efficacy of a Maintenance Four-Days-A-Week Regimen, the ANRS162-4D trial

Abstract
The ANRS 162-4D study, a short-cycles therapy with 4 days in a row, evaluated a 4 days per week regimen in patients with a known virological failure to a fixed dose combination (FDC) of daily ART. The regimen was compared to an alternative 4 days/week regimen based on 48 weekly treatments with the same drugs. Patients with a virological failure (VL ≥ 50 copies/ml) were included in the study if they had a viral load < 50 copies/ml after ≥ 38 weeks of ART. The primary endpoint was the proportion of patients with a virological failure at 48 weeks. Secondary endpoints included virological responses, drug adherence, and quality of life. The results were compared with data from previous trials using different regimens. The study was an open-label, open-access, randomized clinical trial. The results are not yet available for publication.

Background
Given the earlier recommendations of ART for the need for long-life therapy strategies reducing ART failure rate to be investigated for improving long-term virological and quality of life of patients. Shorter cycles therapy with planned short breaks from ART could be a solution for reducing long-term toxicity and costs.

Methods
The ANRS 162-4D study, a short-cycles therapy with 4 days in a row, evaluated a 4 days per week regimen in patients with a known virological failure to a fixed dose combination (FDC) of daily ART. The regimen was compared to an alternative 4 days/week regimen based on 48 weekly treatments with the same drugs.

Objective
This 48-week, randomized, open-label study compared a 4-day, 4-times-per-week (4DPW) regimen of antiretroviral therapy (ART) to a 48-week regimen of the same drugs given daily (4DPW).

Results
The 4DPW regimen was associated with a lower rate of virological failure compared to the 4DPW regimen (P = 0.0016). The results were compared with data from previous trials using different regimens. The study was an open-label, open-access, randomized clinical trial. The results are not yet available for publication.

Conclusion
Over 48 weeks, maintenance ART therapy with 4 days a week regimen was effective in these patients with suppressed VL under 2 nucleosides and either a PI or an INI, resulting in a success rate of 96%. High adherence to therapy was assessed by questionnaires and MEMS caps. A comparative randomised trial and longer-term follow-up will further inform the real efficacy and sustainability of this strategy.

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Probability of therapeutic success

Patients with therapeutic failure

ART concentration during + ON - and OFF - periods

Changes from baseline in pharmacological parameters at week 48

Issues in the study strategy

Adherence to the study strategy using self-reported questionnaires

Percentage of participants with a consistent adherence to the study strategy over the 48-week period

Adherence to the study strategy over time.

Analysis of data from this study showed that the 4DPW regimen was associated with a lower rate of virological failure compared to the 4DPW regimen. The results were compared with data from previous trials using different regimens. The study was an open-label, open-access, randomized clinical trial. The results are not yet available for publication.

Characteristics

Mems Sub-study NAD

Duration of suppressed VL<50copies/ml, mean (SD)

Duration of ART therapy, mean (SD)

Duration of antiviral therapy, months, median (IQR)

Baseline and changes with ON • OFF periods

Changes from baseline in pharmacological parameters at week 48

Analysis of data from this study showed that the 4DPW regimen was associated with a lower rate of virological failure compared to the 4DPW regimen. The results were compared with data from previous trials using different regimens. The study was an open-label, open-access, randomized clinical trial. The results are not yet available for publication.

As alluded to earlier, this study evaluated a fixed dose combination of two nucleosides and either a PI or an INI, resulting in a success rate of 96%. High adherence to therapy was assessed by questionnaires and MEMS caps. A comparative randomised trial and longer-term follow-up will further inform the real efficacy and sustainability of this strategy.