



# Utilization of antiretroviral therapies in pediatric patients in Norway

Pediatric human immunodeficiency virus (HIV) infections are rare in Europe. Antiretroviral therapies (ART) are usually given as combinations of drugs to suppress HIV. This DARWIN EU® study aimed to describe real-world ART treatment patterns in pediatric population. Here, we highlight results for Norway.

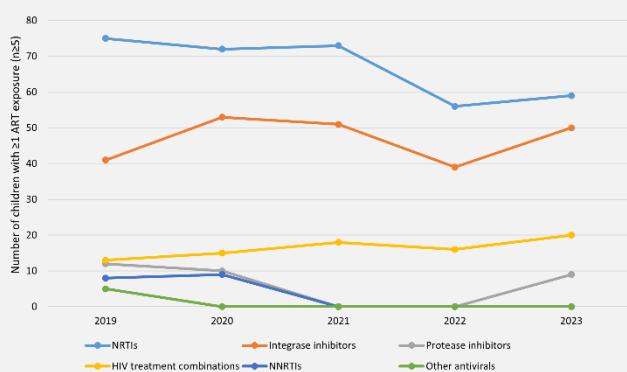
## Study overview

- Design: Population-level drug utilization study in databases across Norway, Spain, and Germany.
- Population: Individuals in Norway (2019–2023) aged <18 years, with ≥1 year of prior observable data (N = 1.43 million).
- Medication: ART dispensations — NRTIs (ATC code J05AF), NNRTIs (J05AG), protease inhibitors (J05AE), integrase inhibitors (J05AJ), and HIV treatment combinations (J05AR).
- Outcomes: Incidence and prevalence of pediatric HIV and ART use.

## ART utilization in Norway

- Compared with Germany, Norway showed higher prevalence for NRTI combinations (31.1% vs 12.3%) and HIV treatment combinations (22.5% vs 6.4%).

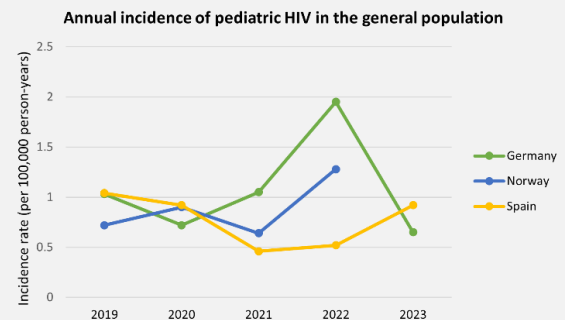
Children with ART use by drug class in the general pediatric population



- In Norway, ART incidence in the pediatric HIV population was highest for NRTI combinations (4.7 per 1000 PYs), followed by HIV treatment and integrase inhibitor combinations (both 4.4 per 1000PYs).

## Characteristics and ART patterns in Norway

- Less than 200 pediatric patients with HIV were identified in Norway during 2019–2023.
- ART use was more common in females and in adolescents aged 12–18 years.



- NRTI exposure occurred in 39% of children (18% single-agent; 31% fixed-dose combinations). Integrase inhibitor exposure occurred in 33% (22% single-agent; 23% fixed-dose combinations); categories can overlap.

## Data & Methods notes

- Guidelines recommend ART for all pediatric patients, typically as integrase inhibitor-based combinations. While fixed-dose combinations are preferred for adherence, children often receive several single-agent formulations because of weight-based dosing, limited formulations, or clinical factors.
- HIV codes may sometimes reflect testing or suspicion, increasing false positives.
- ART dispensing without a recorded HIV diagnosis may reflect HIV prophylaxis, treatment of chronic hepatitis B with selected antiretrovirals, or incomplete diagnostic capture within the database.
- The analysis did not define overlap rules to reconstruct multi-drug regimens from parallel single-ingredient dispensations.

## How was this useful?

This study provides a real-world description of pediatric HIV and ART use in Norway. Pediatric HIV was rare (n < 200), with ART use observed primarily among adolescents and more frequently in females. Treatment was often use of single-agent products in combination regimens, despite guidelines recommending fixed-dose combinations. Future research should refine characterization of treatment trajectories and ATC drug combinations to uncover actionable areas for improving care.

## Access to the full report

[DARWIN EU® - Use of antiretroviral therapies in paediatric patients](#)

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