HSE MID WEST ADDICTION SERVICES | LIMERICK

A Day in the Life of an Addiction Clinic Pharmacist

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ABOUT THE PRESENTERS

Martin Sayers & John Gleeson | Clinic Pharmacists

Clinical Background

- Clinic based Pharmacists within HSE Mid West Addiction Services in Limerick
- Practice backgrounds across community pharmacy, hospital pharmacy, and specialist clinic settings
- Scope includes Opioid Agonist Treatment (OAT), Hepatitis C treatment, and harm reduction

Clinical Focus

- Focus on inclusion health and low-threshold service delivery
- Removing administrative and clinical barriers to improve treatment retention
- Providing direct clinical pharmacy services within multidisciplinary team structures

THE REGIONAL CONTEXT

HSE Mid West: Catchment & Service Geography

Catchment Demographics

- Catchment area covers Limerick City & County, Clare, and North Tipperary
- Urban demographics: Limerick City - Concentrated socioeconomic deprivation and complex substance use presentations
- Rural demographics: Geographic dispersion and transport limitations in Clare and North Tipperary

Regional Delivery Model

- Central Limerick clinic operates as the main HQ with satellite clinics in Nenagh and Clarecastle
- Stepped-care integration: Coordinating with local community pharmacies and Level 1 General Practitioners
- Ensuring standardized clinical access across urban and rural locations

COMMUNITY PARTNERSHIPS

Frontline Service Links in Limerick

Key Statutory & Voluntary Partners

- NOVAS: Supporting individuals in emergency accommodation and supported housing
- Ana Liffey Drug Project Mid West: Low-threshold street outreach and harm reduction delivery
- Mid West Regional Drugs & Alcohol Forum: Regional coordination and service linkage (Gap identification)

https://www.mwrdtf.ie/what-we-do/

Collaborative Operations

- Joint outreach protocols for individuals unable to attend clinic premises
- Case coordination for patients experiencing housing instability or eviction
- Aligning clinical treatment plans with housing, social care, and outreach workers

CARE PHILOSOPHY

Low-Threshold Delivery & Harm Reduction

Low-Threshold Approach

- Minimizing procedural barriers and exclusion criteria that prompt treatment discontinuation
- Treatment retention as a clinical metric: Engagement directly correlates with reduced mortality
- Managing Substance Use Disorder as a chronic, relapsing medical condition

Trauma-Informed Practice

- Recognizing high prevalence of underlying trauma in patient cohorts
- Non-punitive clinical framework: Relapse managed as a treatment indicator rather than a compliance failure
- Providing consistent clinical access following episodes of disengagement

THE CLINIC CARE TEAM

Multidisciplinary Roles in Clinic Practice

Medical & Nursing Staff

- Medical Officers (Level 2 General Practitioners specializing in substance misuse)
- Clinical Nurse Specialists (CNS) and General Nursing Staff: Triage, assessments, and wound care
- Addiction Counsellors, Social Workers, Occupational Therapist and Community Key Workers: Psychosocial interventions

Pharmacy & Peer Support

- Clinic Pharmacists: Pharmacotherapy governance, clinical safety checks, and primary care liaison
- Daily operational huddles: Addressing acute presentations and regimen adjustments
- Collaborative care planning to support complex medical and psychiatric co-morbidities

PHARMACY SCOPE

Clinic Pharmacist Operational Scope

Clinical Responsibilities

- Active participation in clinical reviews, titration protocols, and regimen stabilization
- Monitoring clinical parameters: Liver and renal function bloods, drug-drug interactions, and sedation
- Interacting with clients regularly during week to assess their ongoing needs

Systems & Sector Links

- Implementing missed dose protocols and formulation conversions
- Direct liaison with University Hospital Limerick (UHL) and prison healthcare
- Prescription clarification and transfer management with community pharmacies

CLINICAL GOVERNANCE

The Central Treatment List (CTL) System

Statutory Purpose & Function

- National statutory register maintained by the Health Service Executive for Opioid Agonist Treatment
- Prevents duplicate prescribing and dual dispensing across clinics and community pharmacies
- Allocates one designated medical prescriber and one designated dispensing site per patient

Operational Workflows

- Processing Central Treatment List transfer documentation for patients stepping down to community dispensing
- Provide / Receive updates during hospital admissions, court committals, and prison releases
- Standard clinical safety audit trail for Controlled Drug governance in Ireland

HOW MEDICINES WORK

Receptor Pharmacology: Full vs. Partial Agonism

Receptor Physiology

- Mu-opioid receptors in the central nervous system regulate pain, reward pathways, and respiratory drive
- Chronic exposure results in less receptor activity and physical dependence
- Opioid Agonist Treatment maintains receptor occupancy, preventing withdrawal and reducing illicit use

Clinical Effects

- Suppressing withdrawal and physical cravings without illicit peak-and-trough intoxication
- Long elimination half-lives allow once-daily administration
- Restores neurochemical stability, permitting engagement with health and social interventions

METHADONE OVERVIEW

Full Agonism & Absence of Respiratory Ceiling

Pharmacokinetic Profile

- Full Mu-Agonist: Produces complete receptor activation across therapeutic dose ranges
- Elimination half-life: 27 hours average but variable, permitting once-daily oral dosing
- Cross-Tolerance: Attenuates euphoric effects of additional illicit opioids

Respiratory Depression Kinetics

- No ceiling effect on respiratory depression: Sedation and respiratory suppression increase linearly with dose
- Excessive doses lead to fatal respiratory arrest
- Initiation protocol: Conservative starting doses (20-30mg) due to complex pharmacokinetic profile with gradual titration of no more than 10mg every three days to allow full effects of the previous three days to develop

BUPRENORPHINE OVERVIEW

Partial Agonism & The Respiratory Ceiling Effect

Receptor Characteristics

- Partial Mu-Agonist: Binds with high affinity but exhibits lower intrinsic opioid activity
- Receptor occupancy: Displaces and blocks full agonists from activating the opioid receptor
- Less cognitive sedation reported compared to full agonist regimens

The Ceiling Effect

- Ceiling effect on respiratory depression: Beyond therapeutic doses respiratory suppression plateaus
- Accidental fatal overdose from buprenorphine as a sole agent is rare
- Milder physical withdrawal profile upon gradual discontinuation

FORMULATION SAFETY OF BUPRENORPHINE

Pharmacokinetics of Naloxone in Combination Products

Sublingual Bioavailability

- Combination tablets (Zubsolv®, Bulexin®) combine buprenorphine with naloxone in a 4:1 ratio
- Sublingual absorption of naloxone is negligible (clinically under 10%)
- Buprenorphine is absorbed sublingually while naloxone undergoes extensive first-pass hepatic metabolism if swallowed

Abuse Deterrence Mechanism

- Function: Included solely to prevent parenteral diversion (crushing and intravenous injection)
- Parenteral activation: If injected, naloxone exhibits high bioavailability, blocking receptors and precipitating acute withdrawal (note different durations of action, naloxone 20minutes, buprenorphine >24hours)
- Minimizes illicit market value and diversion potential of take-home tablets

METHADONE IN PRACTICE

Formulation Standards: 1mg/ml Liquid

1mg/ml Sugar-Free Oral Solution

- National formulation standard: 1mg in 1ml clear green sugar-free oral solution
- Sugar-free requirement: Prevents accelerated dental caries in patients with opioid-induced dry mouth
- Administration: Rapidly ingested, given under direct supervision at the dispensing hatch

Paediatric Risk & Safe Storage

- Paediatric toxicity risk: Small volumes of 1mg/ml liquid can cause fatal respiratory arrest in non-tolerant individuals
- Accidental ingestion safeguards: Restricting take-home quantities until clinical stability is confirmed
- Mandated safety measures: Ensuring patients have lockboxes and provision of child-resistant closures for all take-home doses
- Promoting safe home storage environments to protect family members and dispense in individual daily dosed containers

SUBLINGUAL TABLETS

Suboxone Discontinuation, Bulexin & Zubsolv

Market Availability in Ireland

- Suboxone® and Subutex® Discontinued: The innovator brand Suboxone was withdrawn from the Irish market in January 2026
- Current formulations: Generic Bulexin® (Pinewood) and Zubsolv® are the primary dispensed brands
- Bulexin matches conventional buprenorphine/naloxone sublingual tablet (Suboxone) dosing (2mg, 4mg, 8mg strengths)

Zubsolv Bioequivalence Rule

- Zubsolv Bioavailability: Advanced formulation exhibiting higher (quicker) sublingual absorption
- Non-interchangeable milligram-for-milligram: Zubsolv 5.7mg is clinically equivalent to standard 8mg Bulexin
- Pharmacist checks: Ensuring prescriptions explicitly designate brand and correct strength.

LONG-ACTING INJECTABLES

Buvidal: Long-Acting Subcutaneous Buprenorphine

Formulation Characteristics

- Long-acting subcutaneous lipid-crystal depot injection administered weekly or monthly
- Eliminates daily clinic or community pharmacy attendance requirements
- Pharmacokinetics: Stable plasma concentrations without daily minor peak-trough fluctuations that occur within the therapeutic range with sublingual formulations

Clinical & Diversion Profile

- Zero diversion potential: Administered directly by healthcare professionals; cannot be sold or extorted
- Adherence improvement: Protects treatment continuity in chaotic social circumstances and need for retitration due to frequent missed doses
- Supports employment: Removes logistical barrier of daily morning dispensing attendance

LEGAL FRAMEWORK

Controlled Drugs: Statutory Delivery Exemptions

Misuse of Drugs Regulations 2017

- Schedule 2 Controlled Drugs are subject to strict legal custody and conveyance restrictions
- Standard retail practice: Delivery requires signed patient authorizations or designated agents
- Mandatory compliance: CD Register reconciliation, balance logging, and secure storage

Statutory Clinic Exemption

- Statutory Exemption: HSE addiction clinics and authorized staff operate under specific legal exemptions
- Conveyance Authority: Permits healthcare staff to legally transport and deliver OAT to patients in exceptional circumstances
- Legally enables outreach dispensing for immobile clients without regulatory breach

DOORS OPEN: CLINIC HATCH

Supervised Consumption & External Medication Care

Frontline Clinical Assessment

- Dispensing encounter serves as an active clinical evaluation
- Screening for acute intoxication: Assessing speech articulation, motor coordination, and pupil size, familiarity with service user usual presentation plays an important part of assessment
- Withdrawal assessment: Checking for tremors, diaphoresis, piloerection, and anxiety
- Dose withholding: Doses deferred if patient displays central nervous system sedation

Managing External Medications (RPB Coordination)

- Holistic Care: Managing daily general medications for clients with external community GPs
- RPB Collection: Collecting dispensed supplies directly from the community pharmacy (Retail Pharmacy Business / RPB)
- Hatch Co-Administration: Dispensing daily medical doses alongside OAT with explicit client consent. May also include specialist medication such as HIV Anti-retroviral therapy
- Clinical Protection: Securing compliance with psychiatric and cardiac drugs while preventing theft or loss in hostels

DOORS OPEN: CLINIC HATCH

Administration Kinetics: Liquid vs. Sublingual Tablets

Oral Liquid Dispensing

- Ingestion time: Approximately 5 seconds under direct visual observation
- Swallowing verification: Clinician engages patient in brief verbal response post-dose
- Minimizes opportunity for oral retention and diversion

Sublingual Tablet Dispensing

- Dissolution time (Bulexin®): 5 to 10 minutes required for complete sublingual absorption
- Dissolution time (Zubsolv®): Rapid-dissolving micro-particles decrease required observation time
- Supervision requirement: Monitoring patient until tablet has fully dissolved to prevent removal

DOORS OPEN: CLINIC HATCH

Routine Monitoring & Side Effect Management

Common Adverse Effects

- Xerostomia: Opioid-induced reduction in salivary flow causing accelerated dental caries
- Opioid-induced constipation: Proactive prescribing of stimulant and osmotic laxatives
- Endocrine suppression: Opioid-induced hypogonadism presenting as fatigue and hormonal disruption, e.g. low testosterone, menstrual irregularities

Laboratory & Diagnostic Surveillance

- Blood monitoring: Routine liver enzymes, renal panels, and viral serology (Hep C Virus, Hep B Virus, HIV, Syphilis)
- Electrocardiogram (ECG) screening: Evaluating QTc intervals on methadone doses exceeding 100mg daily or on other medication that may impact on QTc interval
- Routine physical triage integrated into daily dispensing appointments

SAFETY CHECKS AT THE HATCH

Loss of Tolerance: The 72-Hour Threshold for Methadone

Physiology of Tolerance Loss

- Opioid tolerance declines rapidly upon discontinuation of regular methadone dosing
- 72-Hour Threshold: After 3 consecutive missed days, tolerance is significantly reduced
- Overdose Risk: Administering a maintenance dose of 80-100mg after 3 days absence can precipitate fatal respiratory arrest

Notification Protocol

- Community Pharmacy Mandate: Pharmacies must withhold medication and notify the clinic after 3 consecutive missed days
- Investigation: Clinic verifies whether missed doses were caused patients non-attendance, by hospital admission or prison custody
- Non-punitive triage: Protocol addresses biological overdose risk rather than patient compliance

SAFETY CHECKS AT THE HATCH

Methadone Protocol: 3 to 4 Missed Doses

The 30mg / Half-Dose Rule

- **Autonomous Clinic Protocol (not for community pharmacy use)**: Patients missing 3 or 4 consecutive days do not require immediate Medical Officer review
- Dosing formula: Dose is reduced to 30mg OR half the regular maintenance dose, whichever is higher
- Example A: Patient on 80mg missing 3 days is restarted at 40mg (half-dose)
- Example B: Patient on 40mg missing 3 days is restarted at 30mg (30mg > 20mg half-dose)

Clinical Rationale

- Mitigates chance of respiratory depression while providing sufficient receptor occupancy to manage withdrawal
- Operates under clinical protocol to maintain operational flow and avoid prescriber delays
- Dose is systematically re-titrated back to maintenance levels over subsequent days (usually increased by 10mls every 48 hours back to maintenance dose), more rapid titration is permissible in this case as patient tolerance is known from previous dosing

SAFETY CHECKS AT THE HATCH

The 5+ Day Threshold: Medical Officer Re-Assessment

Complete Tolerance Reset

- After 5 consecutive missed days, opioid tolerance is considered completely reset to baseline
- MANDATORY MEDICAL REVIEW: The patient must be evaluated by the Medical Officer before any dose is dispensed
- Dosing requires formal re-induction: Starting doses initiated at 20 to 30mg daily

Clinical Evaluation

- Detailed clinical re-assessment: Reviewing toxicology, physical status, and recent substance use
- Investigating underlying crisis: Identifying causes of disengagement (e.g. homelessness, acute illness)
- Structured titration plan established to rebuild therapeutic stability

CLINICAL ASSESSMENT

The Clinical Opiate Withdrawal Scale (COWS)

Validated Diagnostic Tool

- Clinical Opiate Withdrawal Scale (COWS): 11-item validated instrument rating withdrawal severity
- Objective parameters: Resting pulse rate, sweating, pupil diameter, tremors, lacrimation, and rhinorrhea
- Subjective parameters: Gastrointestinal upset, bone/joint aches, anxiety, and restlessness

Clinical Application in Buprenorphine Induction

- Induction Threshold: Patient must achieve a score of 12 to 13 (moderate withdrawal) before receiving buprenorphine
- Confirms receptor clearance: Demonstrates full agonists have vacated receptors
- Primary objective safeguard against precipitating acute withdrawal when buprenorphine is administered

SAFETY PROTOCOLS

Precipitated Withdrawal & Buvidal Delays

Mechanism of Precipitated Withdrawal

- Buprenorphine's high receptor affinity rapidly displaces full agonists (heroin, methadone) from the receptor
- Lower intrinsic efficacy causes an abrupt drop in receptor activation, inducing severe withdrawal within minutes
- Risk window: Administering buprenorphine while full agonists remain bound to receptors

Clinical Management & Buvidal Grace Periods

- Verification: Assessing patient using the COWS score before re-administering sublingual tablets
- Buvidal depot delays: Evaluating elapsed time past scheduled weekly or monthly injection windows
- Interim bridging: Prescribing short sublingual buprenorphine bridge doses if depot administration is delayed

TRANSFER PROTOCOLS

The Bernese Method: Microdosing Transitions

Limitations of Conventional Transfer

- Conventional protocol: Required tapering methadone below 30mg, followed by 24 to 48 hours of complete cessation
- Clinical barrier: Patients frequently failed to tolerate moderate withdrawal, resulting in high relapse rates
- Prolonged transition periods delayed access to long-acting depot therapy

The Microdosing Protocol (Bernese Method)

- Continuous Methadone: Patient continues their full therapeutic methadone dose without preliminary tapering
- Micro-induction: Administering incremental micro-doses of buprenorphine (0.4mg upwards)
- Gradual displacement: Buprenorphine progressively occupies receptors over 7 to 10 days, after which methadone is discontinued

CLINICAL CASE STUDY 1

Case 1: Methadone to Buvidal via Bernese Microdosing

Patient Presentation & Clinical Barrier

- Patient Profile: 38-year-old on 70mg methadone daily; requested transfer to Buvidal to accommodate employment
- Clinical Barrier: Patient had previously attempted a conventional transfer and relapsed due to withdrawal intolerance below 30mg
- Strategy: Initiated on the Bernese microdosing protocol to avoid methadone tapering and acute withdrawal

Protocol Execution & Outcome

- Protocol: Maintained methadone at 70mg; initiated sublingual buprenorphine at 0.4mg daily, titrating over 9 days to 11.4mg
- Transition: Methadone discontinued on Day 10; Zubsolv maintained for 7 days then weekly Buvidal 24mg administered subcutaneously
- Clinical Outcome: Zero precipitated withdrawal recorded; successfully transitioned to monthly Buvidal 96mg depot

SUBSTANCE TRENDS

Epidemiology: National Cocaine & Opioid Trends

Health Research Board (HRB) Data

- National treatment data confirms cocaine is the most common problem drug reported in new treatment presentations in Ireland
- Overtaken opioids: Presentation numbers for cocaine now exceed presentations for heroin nationwide
- Widespread distribution across urban and rural demographics in the Mid West

Clinical Implications

- Polysubstance predominance: Pure single-substance opioid use is infrequent; multi-substance profiles predominate
- Absence of pharmacotherapy: No licensed replacement pharmacotherapy exists for stimulant dependence
- Service adaptation: Increasing operational reliance on targeted harm reduction and psychosocial interventions

LOCAL TRENDS

Crack Cocaine Prevalence in Limerick City

Consumption Patterns & Debt

- Short duration of action drives compulsive binge consumption patterns
- Rapid financial depletion resulting in severe drug debt and community intimidation
- High rates of treatment disengagement during active binge periods

Physical & Social Deterioration

- Severe weight loss, nutritional depletion, and sleep deprivation
- Acute psychological effects: Drug-induced paranoia, psychomotor agitation, and behavioral instability
- Accommodation impact: High rates of eviction from emergency accommodation due to using on premises

ACUTE MEDICAL RISKS

Snowballing & Acute Presentations at UHL

Intravenous Snowballing

- Co-injection: Intravenous administration of heroin combined with crack cocaine in a single syringe
- Vascular consequences: Severe vasoconstriction causing rapid vein collapse and missed hits
- Soft-tissue infection: High incidence of deep abscesses, cellulitis, and necrotic ulceration

Cardiovascular Emergencies

- Toxicity: Tachycardia, acute hypertension, and myocardial ischemia presenting to University Hospital Limerick
- Diagnostic complexity: Stimulant and depressant co-ingestion masks early indicators of respiratory failure
- Increased frequency of emergency hospital admissions among the clinic cohort

HARM REDUCTION

Safer Inhalation Equipment Distribution

Pathology of Improvised Pipes

- Improvised equipment: Use of broken glass bottles, copper wire, and plastic tubing causes lip and airway burns
- Infection transmission: Cracked and bleeding lips facilitate Hepatitis C and HIV transmission during pipe sharing
- Anecdotal evidence of pipe sharing in emergency accommodation and street settings

Sterile Inhalation Supplies

- Distribution: Heat-resistant Pyrex glass stems and rubber mouthpieces supplied via Ana Liffey Mid West and Pharmacy Needle Exchange Programme
- Reduces burn injuries, oral lacerations, and subsequent bloodborne virus transmission
- Pragmatic harm reduction: Engaging clients actively using stimulants who do not attend clinic dispensaries

STREET BENZODIAZEPINES

Counterfeit Preparations & Novel Adulterants

Illicit Market Characteristics

- Counterfeit blister packs: Stamped as 'D10' (diazepam) or alprazolam, displaying commercial packaging
- Absence of genuine Active Product Ingredient: Laboratory analysis demonstrates tablets contain zero genuine diazepam
- Readily available at low cost throughout local supply networks

Novel Synthetic Benzodiazepines

- Unregulated active substances: Pressed with novel compounds including bromazolam and flualprazolam
- Unpredictable potency: Significant variability in dose per tablet causing prolonged blackouts
- High liability for rapid physiological dependence and unmeasured tolerance

POLYDRUG TOXICITY

Fatal Synergy: Methadone & Benzodiazepines

Pharmacodynamic Synergy

- Compounded depression: Mu-opioid receptor suppression of respiratory drive in addition to GABA-A receptor driven sedation
- Mortality data: The combination of methadone and benzodiazepines represents the primary driver of fatal overdoses in Ireland
- Patient perception: Tolerant opioid patients frequently underestimate the respiratory risk of adding benzodiazepines

Resuscitation Challenges

- Unpredictable half-lives: Novel benzodiazepines exhibit extended elimination periods lasting multiple days
- Reversal limitations: Naloxone reverses opioid-induced respiratory arrest but does not reverse benzodiazepine sedation
- Clinical requirement: Patients require prolonged hospital observation and airway protection post-naloxone administration

BENZODIAZEPINE DETOX

Community Diazepam Reduction Protocols

Clinical Rationale & Equivalence

- Abrupt cessation is contraindicated: High risk of grand mal seizures, status epilepticus and severe delirium
- Diazepam conversion: Moving patients from erratic street tablets to a standardized pharmaceutical diazepam dose, which can be challenging due to high doses ingested, e.g. street equivalent of up to 600mg diazepam daily
- Pharmacist role: Assessing equivalence, dispensing on a daily supervised basis, and monitoring stability

Structured Tapering

- Gradual titration: Slow dose reductions (e.g. 2mg decrement every 1 to 2 weeks)
- Managing rebound symptoms: Monitoring anxiety and insomnia to prevent return to illicit supplies
- Providing a structured clinical protocol to gradually reduce high-dose benzodiazepine dependence

RESIDENTIAL DETOX

Inpatient Stabilization: Cuan Mhuire Bruree

Indications for Residential Referral

- Community failure: Severe home instability, homelessness, or concurrent polysubstance dependence
- Cuan Mhuire (Bruree, Co. Limerick): Regional facility providing medically supported residential withdrawal
- 24-hour medical and nursing care to manage acute withdrawal complications

Pharmacy Care Coordination

- Clinical transfer: Preparing formal medication reconciliation and discharge titration charts
- Treatment continuity: Ensuring OAT is maintained seamlessly throughout the residential admission
- Re-entry planning: Coordinating post-discharge care with the clinic or community General Practitioner

CLINICAL CASE STUDY 2

Case 2: Missed Doses & Polydrug Presentation

Hatch Presentation & History

- Patient Profile: 29-year-old on 90mg methadone daily; presented on Tuesday having missed 4 consecutive days (Fri-Mon)
- Reported Substance Use: Disclosed heavy crack cocaine and counterfeit 'D10' (bromazolam) use over the weekend
- Clinical Assessment: Mild autonomic withdrawal observed; no acute central nervous system depression or motor impairment

Protocol Application & Resolution

- Protocol Execution: Missed 4 days -> Dose reduced to 45mg (half-dose, as 45mg > 30mg) without requiring doctor review
- Safety Intervention: Dose administered under supervision; take-home intranasal naloxone (Nyxoid) issued
- Follow-up: Re-titrated back to maintenance 90mg over several days; referral made to key worker for accommodation check

OVERDOSE PREVENTION

Naloxone Supply & Community Pharmacy Status

Legislation & Nyxoid Device

- Statutory Instrument 504 of 2015: Prescription-only medicine legally permitted for non-prescription emergency supply
- Nyxoid Nasal Spray: 1.8mg single-dose nasal spray requiring no assembly or needle handling. (Naloxone injection is also available but the NS appears to be preferred by most clients)
- Clinical education: Reverses opioid toxicity exclusively; has zero reversal efficacy against cocaine or benzodiazepines

Community Pharmacy Availability

- HSE Naloxone Scheme: Expanding free supply across participating community pharmacies
- Current Reality: Availability remains variable across high street pharmacies; work ongoing to expand uptake
- Strategic Goal: Standardized over-the-counter availability across all retail pharmacies in Ireland
- EMA Gives Green Light To EU-Wide Switch Of Opioid Overdose Spray Nyxoid , subject to consideration by EU Committee for Medicinal Products for Human Use (CHMP)

PUBLIC HEALTH SURVEILLANCE

Submitting Drug Samples for Laboratory Analysis

Client Safety Service

- Facilitating the submission of street substance samples to accredited laboratories on behalf of clinic clients
- Diagnostic objective: Identifying active adulterants following adverse events, atypical overdoses, or unexpected blackouts
- Non-punitive feedback: Providing objective chemical results directly to the patient to inform personal risk reduction

HSE Early Warning Surveillance

- Contributing data directly to the HSE Early Warning and Emerging Trends Network
- Early identification of synthetic opioids: Detecting nitazene analogues before mass overdose events occur
- Provides localized epidemiological intelligence on the Mid West street drug market

HEPATITIS C TREATMENT

Direct-Acting Antivirals in Clinic Practice

Epidemiological Burden & Regimens

- High prevalence: People who inject drugs represent the primary demographic affected by Hepatitis C in Ireland
- HSE National Hepatitis C Treatment Programme: Fully funded, all-oral pan-genotypic Direct-Acting Antivirals (DAAs)
- First-Line Regimens: Maviret (glecaprevir/pibrentasvir, 8 weeks) & Epclusa (sofosbuvir/velpatasvir, 12 weeks)
- Clinical Efficacy: Sustained Virologic Response (cure) rates exceed 95% in real-world clinical cohorts, with very low side-effects rates. Treatment does **not** result in immunity against future re-infection and there is no vaccine for Hepatitis C

Decentralized Care Delivery

- Overcoming secondary care barriers: Assessment, bloodspot testing, and prescribing delivered entirely on-site
- Eliminates hospital outpatient appointments that traditionally resulted in high rates of non-attendance
- Transforms a chronic hepatotoxic infection into a short, curative outpatient intervention

HEPATITIS C PHARMACY

Co-Dispensing & Critical Drug-Drug Interactions

The Co-Dispensing Model

- Dispensing DAA doses directly alongside daily or weekly supervised Opioid Agonist Treatment
- Eliminates treatment default: Patients already attending for OAT achieve near-100% antiviral adherence
- Prevents loss or theft of high-cost antiviral medication in unstable housing environments

Pharmacist Interaction Surveillance

- CRITICAL DRUG INTERACTION: Proton Pump Inhibitors (omeprazole) significantly decrease antiviral absorption
- Pharmacist management: Discontinuing PPIs, switching to H2-receptor antagonists,
- Post-treatment harm reduction: Provision of sterile injecting and smoking equipment and safe disposal of used works via needle exchange to prevent reinfection

CLINICAL CASE STUDY 3

Case 3: OTC Codeine Dependence to 2-Year Stability

Community Pharmacy Presentation

- Presentation: Male in his 30s repeatedly presenting to a community pharmacy requesting codeine 12.8mg/ibuprofen 200mg product
- History: Disclosed heavy daily consumption driven by over-the-counter dependence; high anxiety regarding occupational impact
- Intervention: Private consultation conducted; referred and linked with the addiction clinic for evaluation the following morning

Buvidal Initiation & 2-Year Outcome

- Treatment Initiation: Assessed by the Medical Officer and initiated onto Buvidal subcutaneous depot injection
- Clinical Advantage: Monthly administration removed the requirement for daily pharmacy attendance, protecting his employment
- Medical Outcome: Halted chronic high-dose ibuprofen intake, eliminating gastrointestinal ulceration and renal toxicity risks
- Long-Term Stability: Maintained clinical stability on Buvidal for 2 years with continuous employment and family stability

TRANSITIONS OF CARE

Prison & Hospital Discharge Liaison Protocols

Prison Liaison & Release Planning

- Release Notifications: Notified by prison healthcare when an individual is due for release
- Elevated Mortality Risk: The first 14 days post-release represent the highest statistical risk for fatal overdose
- Same-Day Dispensing: Immediate Central Treatment List reactivation ensuring medication is available upon release
- Harm Reduction: Provision of take-home naloxone kits on discharge to protect against accidental overdose

University Hospital Limerick Liaison (Dooradoyle)

- Emergency Admissions: Verifying exact OAT formulation, strength, and last consumption for acute inpatients
- Preventing Withdrawal: Ensuring appropriate dosing on medical/surgical wards to prevent self-discharge against medical advice
- Discharge Planning: Coordinated handover to clinic or community pharmacy with zero gap days in treatment

THE LIVED REALITY

Lived Realities: Social & Physical Harms

Social & Housing Instability

- Emergency accommodation challenges: Lack of secure storage for take-home doses; high risk of medication theft
- Drug-Related Intimidation: Debts and coercion impacting patients and their families in local communities
- Systemic stigma: Enduring institutional and societal discrimination that inhibits engagement with mainstream healthcare

Physical Pathology & Bereavement

- Vascular pathology: Chronic venous insufficiency, deep vein thrombosis, and leg ulceration resulting from femoral injecting
- Infective Endocarditis: Severe heart valve infections requiring prolonged inpatient IV antibiotics and surgery at UHL
- Cumulative bereavement: Managing the psychological impact of repeated peer and partner fatal overdose losses