1 Introduction
The purpose of this document is to describe the factors contributing to the issue of inappropriate polypharmacy as it relates to NHS Fife and proposes the direction which NHS Fife will pursue over the next three years to address the issue. It does so by outlining:
- current activity across NHS Fife to address inappropriate polypharmacy
- the influences impacting on tackling inappropriate polypharmacy
- the NHS Fife polypharmacy vision
- prevention of polypharmacy
- targeting polypharmacy review activity
- polypharmacy educational activity & resources
- polypharmacy reviews through GMS
- role of pharmacy in managing polypharmacy
- polypharmacy reviews in care homes
- implementation of the polypharmacy strategy

2 Polypharmacy
Medication is by far the most common form of medical intervention for many acute and chronic conditions. Medicines are often highly effective in curing illness, managing symptoms, preventing disease and slowing disease progression. The NHS Fife Clinical Strategy will articulate the vision and plans to achieve the clinical transformational change required to deliver the priorities of the 2020 Vision for Health and Social Care.

The care of patients with co-morbidity (more than one long term condition) is now one of the greatest challenges faced by the NHS. Research into the management of patients with multiple medical conditions is in relative infancy. Despite this there is the requirement to provide guidance to both patients and healthcare providers based on the best evidence to date. Polypharmacy (many medicines) may have positive (appropriate) or negative (inappropriate) potential and reducing the number of medicines a person is taking may not be the only factor to consider when reviewing polypharmacy.

The key health care aim for the clinician and individual patient remains to ensure the continuing safe and effective use of the totality of the patient’s multiple medicines¹. The more medicines a patient takes, the more likely they are to suffer an adverse drug reaction. This risk is more closely related to an increasing number of long term medical conditions than increasing age. (See Fig 1) The severity of adverse drug reaction measured varies, though they are currently thought to contribute to between 5-17 % of all unplanned admissions to hospital in the UK. NHS Fife currently has 12,800 patients over 50 years of age taking medicines from 10 or more BNF sections.

¹ Polypharmacy Guidance for the safe and effective use of multiple medicines to manage long term conditions. DL (2015) 004. 15th April 2015

Getting Better in Fife (2012-17) is NHS Fife’s Improvement Plan which aims to improve patient experience through reducing harm, waste and unwarranted variation. It describes our priority areas for improvement in the delivery of clinical services and underpins our strategic objectives. One of the five workstreams described in the plan aiming to improve the patient experience is Safe and Effective Medicines Management. One of the components of this workstream aims to reduce inappropriate polypharmacy in frail adults with multiple long term conditions.

It is crucial to distinguish appropriate from inappropriate polypharmacy. CEL 36 (2012)\(^2\) required that NHS Boards would have plans in place to identify priority patients with potentially inappropriate polypharmacy and to review those patients at greatest risk from their drug treatment. NHS Fife developed polypharmacy activity within Primary Care through 3 routes.

**Anticipatory Care Planning / High Risk of Hospital Admissions:** The greatest number of polypharmacy reviews in Fife have been delivered through the GMS contract. Polypharmacy reviews were identified as an essential component of the Anticipatory Care Planning process targeted at patients at high risk of unscheduled hospital admission. Patients were identified through a combination of SPARRA lists and clinical assessment by the practice clinicians. There were a reported 5,348 face

---

\(^2\) Appropriate prescribing for patients and polypharmacy guidance CEL 36 (2012)
to face reviews undertaken in 2013-14\(^3\) and 8,377 in 2014-15 for a patient group that were deemed to be at high risk of hospital admission.

**Enhanced Service for Care Home Patients:** Through the development of a Local Enhanced Service for Care of Patients in Care Homes (2013 – 2016) it was possible to ensure reporting of at least annual polypharmacy review activity for patients resident in Care Homes as part of the overall care delivered. Some of the tools included within the Polypharmacy Guidance were included in the enhanced service documentation to support practices to undertake reviews. There were a reported 2,526 polypharmacy reviews undertaken in 2013-14 and 2,708 in 2014-15.

**Increasing Clinical Capacity for Polypharmacy:** More recently a pharmacist service has been developed in the context of *Prescription for Excellence*\(^4\) using pharmacist prescribers to support some practices to review patients with polypharmacy. Patients targeted are > 75 years of age and prescribed more than 10 medicines. The pharmacists have carried out face-to-face (Level 3) medication reviews with patients and carers. To tie in with the Fife Call to Action on falls the service has been developed with a focus on patients with a history of falls and provides a route to address medicines related issues associated with falls. The service has started to integrate with other falls related services in Fife though this will develop. The service has evaluated very well by the patients.

**Medicine for Elderly Speciality:** The Medicine for the Elderly speciality has long advocated the application of the principles of polypharmacy review and have been active in all modes of care delivered in rationalising medicines for their patients. The guidance has been circulated to acute care clinicians via MfE. However, there appears to have been limited adoption of the polypharmacy guidance across other medical specialities.

**Polypharmacy Steering Group:** Since the inclusion of polypharmacy as a component of Getting Better in Fife a multidisciplinary steering group was formed to agree and establish monitoring parameters and advise on and direct polypharmacy activity in NHS Fife. The focus of the group has mainly been on primary care activity. Governance arrangements are in place for this group to report in to the Area Drug and Therapeutics Committee and the NHS Fife Frailty Steering Group. The group has agreed the measures that NHS Fife use to monitor progress in polypharmacy activity. The focus has been on steering activity towards reviewing and discontinuing medicines that are known to be high risk to frail patients. Recent National Therapeutic Indicator (NTI) figures have demonstrated that Fife is well placed in the use of these medicines in at risk groups when compared with other Health Boards.

**Sick Day Rules Cards:** One of the safety tools included within the polypharmacy guidance was the use of ‘Sick Day Rules’ cards intended for provision to patients taking medicines likely to cause or worsen acute kidney injury or dehydration during concomitant dehydrating illness. The cards advise patients or their carers to discontinue these medicines until their dehydrating illness is over. The cards have been distributed to Fife GP practices and Community Pharmacies for supply to

---

\(^3\) NHS Fife Polypharmacy Data Collection Form, Pharmacy and Medicines Division Scottish Government, April 2015

\(^4\) Prescription for Excellence 2013, Scottish Government
patients. Distribution has been facilitated through the Scottish Patient Safety Programme in Primary Care. The cards are also being used by many of the medical specialties and hospital pharmacy departments.

**NHS Fife Prescribing Action Plan:** To reflect polypharmacy as a national and local priority this has been included within the NHS Fife Prescribing Action Plan. Future work will continue to be described in the Prescribing Action Plan.

### 4 Influences impacting on tackling inappropriate polypharmacy

**Health and Social Care Partnership Development:** NHS Fife is working to ensure that Person Centred Care sits at the heart of everything we do. NHS Fife’s Strategic Clinical Framework makes direct reference to person centred care, ensuring that this is seen and communicated as a strategic priority. The vision of Health & Social Care Integration in Fife is to provide accessible, seamless, quality services and support that are personalised and responsive to the changing needs of individuals. Services will reflect the Scottish Government’s direction set out in the 20:20 vision for sustainable quality in Scotland’s healthcare where everyone is able to live longer healthier lives at home or in a homely setting.

Over the next decade, we face enormous challenges with Fife’s population getting older. By 2024, the number of people, aged over 75 years, is predicted to increase by 44.6%. Many more people will be living with more than one long term condition (a 50% increase in the next ten years) and there are increasing demands on services. The largest increases will be seen in persons aged 65-74 and those aged 75 and over. By 2037, the number of persons aged 65-74 is expected to be 12,000 more than in 2012, a rise of 33% whilst the number of persons aged 75 and over is estimated to increase by 93% from 29,632 in 2012 to 57,327 in 2037. (Figures 2 & 3)

In Fife, it is estimated that, currently, 5,961 people are affected by dementia. With more people living longer, this figure is predicted to increase over the next 15 years by approximately 3,600. This provides challenges in terms of the ageing population and the incidence of frailty including dementia.

To address some of the challenges we face it is intended that polypharmacy reviews will be provided proactively before patients experience adverse effects from their medicines. Whereas services have previously been directed at those with an existing high level need, activity should be directed to patients who are at risk of becoming high service users as a result of their medicine related problems so a more preventative approach is taken. Reviews should be delivered in a co-ordinated and integrated way with good communication across other health and social care services. This is a strategic priority for the HSCP.
Figure 2: Fife’s population structure (from KnowFife dataset)

Figure 3: Fife Population Projections | Age Group | 2012-2037

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2012</th>
<th>2017</th>
<th>2022</th>
<th>2027</th>
<th>2032</th>
<th>2037</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 18</td>
<td>73,096</td>
<td>73,127</td>
<td>75,586</td>
<td>77,460</td>
<td>78,092</td>
<td>78,338</td>
</tr>
<tr>
<td>18 to 64</td>
<td>223,971</td>
<td>224,296</td>
<td>221,702</td>
<td>218,915</td>
<td>214,533</td>
<td>212,419</td>
</tr>
<tr>
<td>65+</td>
<td>67,153</td>
<td>75,319</td>
<td>82,695</td>
<td>91,848</td>
<td>100,843</td>
<td>107,232</td>
</tr>
<tr>
<td>All Ages</td>
<td>366,220</td>
<td>372,742</td>
<td>380,185</td>
<td>387,509</td>
<td>393,468</td>
<td>397,965</td>
</tr>
</tbody>
</table>

% Change from 2012 to...

- 2012 2017 2022 2027 2032 2037
- 0.0% 4.0% 5.5% 6.6% 7.2%
- -0.7% -1.5% -3.4% -5.1% -8.5%
- 12.2% 23.2% 36.8% 50.2% 59.7%
- 1.6% 3.5% 5.8% 7.4% 8.7%
The Joint Health and Social Care Strategy for Older People in Fife 2011 to 2026 places an emphasis on integrated services which focus on prevention and anticipatory care; reducing unplanned hospital admissions; and services which promote rehabilitation and reablement. Effective systems and processes can minimise the risk of preventable medicines-related problems such as side effects, adverse effects or interactions with other medicines or comorbidities. The risk of people suffering harm from their medicines increases with polypharmacy.

To achieve some of the National Outcomes for Integration effective polypharmacy reviews can be an enabler in achieving some of the desired outcomes. In particular outcome 2: People, including those with disabilities or long term conditions, or who are frail, are able to live, as far as reasonably practicable, independently and at home or in a homely setting in their community. Outcome 9: Resources are used effectively and efficiently in the provision of health and social care services can also be improved with effective polypharmacy review.

**Scottish Government Perspective:** The Scottish Government’s 3 Quality Ambitions are Person Centred, Safe and Effective and the 12 Priority Areas for Improvement include Care for Multiple and Chronic Illnesses.

The Government strategic direction is set out in the 20:20 vision that by 2020 everyone is able to live longer healthier lives at home, or in a homely setting. We will have a healthcare system where we have integrated health and social care, a focus on prevention, anticipation and supported self-management. Whatever the setting, care will be provided to the highest standards of quality and safety, with the person at the centre of all decisions. There will be a focus on ensuring that people get back into their home or community environment as soon as appropriate, with minimal risk of re-admission.

**Implementation of National Guidance:** Twenty per cent of the adult population in Scotland is taking more than five medications every day. With the increasing complexity of multiple drug regimes come the inevitable loss of uptake, increased potential for interactions and side effects, and a significant increase in the risk of unintended harm, such as falls, confusion and hospital admission.

The updated Polypharmacy Guidance requests that all patients reviewed should have the Polypharmacy read code (8B31B) attached to their patient record. NHS Boards are also required to provide a report outlining their plans for reviewing/addressing potentially inappropriate elements of polypharmacy for 2015/16 and 2016/17 and how they are implementing Prescription for Excellence to deliver this. Boards are now required to build on the foundational work of the last three years and focus resource on accelerating the capacity for polypharmacy reviews in order to further increase the expected safety benefits for patients.

**Recommendation:** All patients reviewed should have the Polypharmacy read code (8B31B) attached to their patient record.
5  NHS Fife polypharmacy vision (2016-2019)
Appropriate polypharmacy describes prescribing for an individual with complex or multiple conditions where medicines use has been optimised and where the medicines are prescribed according to best evidence. Inappropriate polypharmacy sees prescribing of multiple medicines where the intended benefits are not realised.\(^6\)

It has been argued that evidence-based guidelines developed for people with single diseases should not necessarily be extrapolated to the management of patients with multiple conditions, given the possibility that this may result in over-treatment and overcomplex medication regimes. This is a common problem for patients as our population becomes increasingly elderly and accumulates ever more long-term chronic conditions. This is not to suggest that guidelines for single conditions should not be used, because currently we have little evidence for what should replace them. There is, however, a need to balance this with the risks inherent in the resulting complex treatment regimens where less appropriate polypharmacy itself may cause harm and hospital admission.

6 Preventing Polypharmacy
**Patient involvement:** Doctors need support in choosing, with their patients, not to apply evidence based guidelines: the strength of guidelines can make doctors feel unable to deviate from them, driven by feelings of peer pressure, assumed patient demand, concern about litigation and an understandable, emotional need to “do something” in the face of long-term conditions. While evidence-based guidelines will continue to inform the management of people with complex, interrelated conditions, we must acknowledge that a focus on biochemical and physiological outcomes alone may frequently fail to support people to achieve their own realistic and holistic goals; asking “What matters to you?” becomes one of the fundamental questions underpinning the discussion with patients.

In 2012, the King’s Fund produced a challenging paper entitled “Patient’s Preferences Matter”\(^8\). Doctors often fail to take into consideration patient preferences in suggesting and providing treatment. Treatment that does not coincide with the patient’s preferences may ultimately be wasteful. An important part of shared decision-making is about health professionals understanding the person's desired level of involvement in decision-making about their medicines. Good practice in prescribing and managing medicines and devices (2013) published by the General Medical Council also emphasises the need to take account of the patient's needs, wishes and preferences.

There has been an increasing trend to treat or intervene to address risk (rather than symptomatic illness). This can greatly improve outcomes but can also result in large numbers of the population taking medicines, or undergoing screening, when they would never themselves have developed the condition in question. While the reduction in heart disease rates can be attributed to the use of primary prevention with statins, and better control of hypertension and diabetes, trends show that the fall

\(^6\) Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes. NICE guideline Published: 4 March 2015
\(^7\) Realistic Medicine, Chief Medical Officer’s Annual Report 2014-15
\(^8\) Patient’s Preferences Matter, Kings Fund, 2012
in heart disease rates pre-dated widespread use of these treatments, and has continued at the same rate as before. One explanation may be that the majority of the decrease has come about from the improvement of lifestyles and environment. Waste in healthcare should be assessed not in terms of what might be thrown away, but in interventions that don’t add value for patients.

**Recommendation:** **NHS Fife encourages and supports healthcare professionals to work collaboratively with the patient to jointly take decisions reflecting patient preferences for treatment which may result in some medicines being declined by the patient.**

**Prescriber Challenge:** To tackle existing polypharmacy and to prevent future polypharmacy it is important that the polypharmacy guidance and the structured approach is applied in all healthcare settings across Fife. All prescribers should be mindful of their own contribution to generating polypharmacy and consider which medicines could be classed as inappropriate and stopped or reduced during review. All prescribers should be challenged when initiating medicines to consider whether any existing medicines could be discontinued or doses reduced. This ‘**Start a Medicine – Stop a Medicine**’ approach will rely on prescribers becoming familiar with the contents and the principles of the Polypharmacy Guidance. A formal promotional campaign will be developed to encourage this approach to limit growth in polypharmacy.

**Recommendation:** **NHS Fife supports and implements the use of a ‘Start a Medicine – Stop a Medicine’ challenge to prescribers when new medicines are prescribed.**

**Guideline development process:** Consideration of future polypharmacy should be integrated into the formulary and guideline development process. Specialities involved in developing local guidance should be asked to consider when and how withdrawal of medication initiated for disease management in the specific area could be undertaken when patients become frail and less able to tolerate the medicines prescribed. This has already started for diabetes and cardiovascular medicine. With some newer medicines advice is being provided through the SPCs for discontinuation should the patient obtain no benefit from the medicine started.

With the development of the NHS Fife Clinical Strategy addressing polypharmacy has been included as a goal. By including polypharmacy as an issue that needs to be tackled this will raise the profile of activity across NHS Fife and encourage a cultural change.

**Recommendation:** **NHS Fife encourages avoiding future polypharmacy by incorporating advice around when and how medication should be withdrawn should the patient not gain the desired benefit.**
7 Targeting Polypharmacy Review Activity

Selecting Patient Populations

It should be a responsibility of all Health and Social Care workers to identify patients who may be demonstrating adverse effects which may indicate inappropriate polypharmacy warranting a polypharmacy review. Unlike traditional type 1 or 2 adverse drug effects where the effect is usually associated with initiation or dose increase of the medicine, the development of adverse effects in the frail population may occur far more insidiously. Culprit medicines may have been taken for many years and it is the progression of the patient’s frailty that precipitates the event.

Boards are asked to have plans in place to identify priority patients with potentially inappropriate elements to their polypharmacy and to review those patients at highest risk of harm. The accompanying Director’s Letter DL (2015) 004 to the national guidance 2015\(^9\) requested that Health Boards should put plans in place to identify two high risk patient groups that should be targeted for review:

- All patients in care homes aged 50 years and over, regardless of the number of medicines they are on
- Patients who are 75 years and over, on 10 or more medicines, one of which is a high risk medication and with a SPARRA score in the range of 40 to 60%

**Recommendation: NHS Fife will target patients resident in care homes for polypharmacy review; patients over 75 years of age on 10 or more medicines ideally with a SPARRA score between 40-60% or patients at high clinical risk of unscheduled hospital admission and patients with a history of falls.**

In addition NHS Fife has identified patients who have fallen as an organisational priority for intervention. Development of referral pathways across multidisciplinary teams/different sectors will be optimised to ensure polypharmacy reviews are undertaken in the most effective settings.

SPARRA data will continue to be used as a means of identifying patients for review in practices. The Care Home Enhanced Service will continue for a further year and then should be replaced with an alternative agreement depending on the tools available through the revised GMS contract. Patients presenting to the ICASS falls services and Hospital @ Home / in-patient services where medicines are thought to contribute to falls should be highlighted to pharmacy services for polypharmacy review. For patients identified where a face to face review is unavailable in Primary Care a Level 2 Medication Review will be undertaken by the pharmacist.

There is an increasing recognition that older age itself should not be a specific focus. Instead, a more functional individualised approach is recommended. To this end the term ‘frailty’ is becoming the preferred term. Adults who are frail lack the reserve to deal with adverse events. Even minor physical and mental stresses can have a big impact on health. Prescribing in this group needs particular attention as guidelines are unlikely to take the presence or absence of frailty into account when making recommendations. This places frail adults at particular risk of: adverse drug

\(^9\) Polypharmacy Guidance Director’s Letter DL (2015) 004

---

NHS Fife Polypharmacy Strategy v 0.6
Dec 2016

Developed by David Binyon on behalf of NHS Fife Polypharmacy Steering Group
reactions: drug to drug interactions or rapid deterioration if necessary medication is not optimised.

To address prevention & early intervention a range of services will be put in place including: Systematically identifying and treating people who are frail within community settings through a planned screening process, closely linking General Practices with medical consultants, specialist nurses and other professional staff. Ideally this should facilitate multidisciplinary polypharmacy reviews. Application of screening tools such as the electronic frailty index (EFI) to identify frail patients who would benefit from review and management should be trialled and implemented if successful as part of the early intervention strategy. A clear pathway for patient management in primary care would need to be defined, it is likely that this will involve review of polypharmacy when applicable.

**Recommendation: Use of a screening tool such as the electronic frailty index to identify people with polypharmacy at high risk of adverse outcomes (emergency admission, nursing home admission, death) who are likely to benefit from structured medication review and optimisation.**

**Polypharmacy and Patient Safety**

Polypharmacy review activity in NHS Fife has been and will be prioritised to improve patient safety and reduce risk associated with medicines known to cause harm to frail patients. e.g. antipsychotics in elderly patients with dementia, NSAIDs & combinations. The potential serious adverse events associated with antipsychotics in people with dementia has become increasingly evident over the last decade. The Polypharmacy Steering Group agreed a range of measures for ongoing monitoring of polypharmacy activity in NHS Fife and many relate directly to patient safety and the increased risk of negative outcomes when some ‘high risk’ medicines are used in vulnerable patients.

The initial raft of measures were selected because the extent of the risk had been established and the improvement in safety evident when medicines were stopped / changed. The existing measures used are:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in patients ≥ 75 yrs prescribed an antipsychotic drug (as a proxy for antipsychotic use in dementia)</td>
<td></td>
</tr>
<tr>
<td>Reduction in patients ≥ 75 yrs prescribed a NSAID without gastroprotection.</td>
<td></td>
</tr>
<tr>
<td>Reduction in patients ≥ 65 yrs currently taking either aspirin or clopidogrel who is prescribed an NSAID without gastroprotection.</td>
<td></td>
</tr>
<tr>
<td>Reduction in patients currently taking anticoagulant prescribed an NSAID without gastroprotection.</td>
<td></td>
</tr>
<tr>
<td>Reduction in patients currently prescribed anticoagulant and an antiplatelet.</td>
<td></td>
</tr>
<tr>
<td>Reduction in patients receiving triple whammy NSAID, diuretic &amp; ACE Inhibitor / AT2.</td>
<td></td>
</tr>
</tbody>
</table>

Future measures are likely to develop over time as the evidence for harm is further established and the use of monitoring tools such as the Prescribing Information System (PIS) are further developed. e.g. use of urinary anticholinergics in at risk patients.
groups, digoxin in renal impairment. Recommendations will continue to be made through the Polypharmacy Steering Group.

Polypharmacy activity has been steered to these safety measures by utilising the Medicines Management initiatives as part of the GMS contract. This approach has been highly successful as demonstrated by reported National Therapeutic Indicators when compared with other Health Boards. (Fig 4)

**Fig 4: Use of antipsychotics in the over 75 year olds**

NHS Fife compares well with other Health Boards when considering the use of antipsychotics in this patient population. There has been a reduction in the use of antipsychotics over the last 4 years though more recently this has tailed off and disturbingly has increased slightly.
NHS Fife also performs well with the APM relating to the percentage of people over 75 years who are prescribed an NSAID without gastroprotection.

**Fig 6: NSAID use in people over 75 years without gastroprotection**

Recent work across Primary Care as monitored through the Polypharmacy Steering Group has shown a marked reduction in patient numbers. This has fallen from 834 patients in 2011 to 374 in 2015.
There has been a similar reduction in patients over the age of 65 receiving a NSAID with an antiplatelet without gastroprotection. The NTI information also highlights some areas that NHS Fife needs to address to minimise adverse effects in future. Opioids in particular have been highlighted as an areas for future activity.

There are a number of initiatives in NHS Fife to ensure our patients receive the safest care possible, e.g. participation in the Scottish Patient Safety Programme (SPSP). It is currently unclear as to how future safety polypharmacy activity should be directed with the dismantling of the QOF and the current status of the SPSP.
**Recommendation:** NHS Fife will use relevant incentives to direct polypharmacy activity to improve patient safety outcomes by limiting high risk medicine use in frail patients

**Polypharmacy Activity in Acute Care**
Frail patients with polypharmacy admitted to acute care through the Medicine for the Elderly speciality will continue to have their polypharmacy reviewed through the admission and discharge process. The Falls Pathway used in acute care highlights when medicines are likely to play a part in patients with falls and medication review is incorporated in the pathway. Through a greater awareness of polypharmacy and the structured approach to reduce or withdraw inappropriate medicines other specialities must adopt these principles to reduce polypharmacy. The challenge to all prescribers to attempt to stop a medicine when starting a medicine should also help.

**Communication supporting polypharmacy activity**
Harm will be reduced by improving communication between healthcare professionals in relation to the use of medicines for individual patients particularly when patients are admitted to or discharged from hospital or when their prescribed medicines are changed. When people transfer between different care providers, such as at the time of hospital admission or discharge, there is a greater risk of poor communication and unintended changes to medicines. When people move from one care setting to another, between 30% and 70% of patients have an error or unintentional change to their medicines.

NHS Fife recognises the need to improve on anticipatory care planning, designing services to make access and use as easy as possible including the use of technology. Communication across care settings will be fundamental to ensuring that any medication review activity is provided in an accurate and timely way so the results of the review to the individual patient are clear to all care providers.

**Recommendation:** NHS Fife will examine and implement the best options to ensure that accurate and timely communication of polypharmacy review information is available across care boundaries.

**8 Polypharmacy Educational Activity & Resources**

**Educational Programme**
Awareness of managing multi-morbidity and attendant polypharmacy will be increased through an ongoing educational programme. This will consist of input into the Grand Round programme and incorporated into the junior doctor training programme. The use of PLT sessions will be used for delivery of education to Primary Care staff involved in reviewing polypharmacy. The use of interactive case based education will be delivered. Education describing developments around the polypharmacy agenda will be delivered to primary care staff through the existing locality prescribing groups.
A formal programme has been developed for pharmacists involved in delivering polypharmacy clinics. A Teach and Treat Programme has been developed to support new pharmacist prescribers to deliver polypharmacy clinics. This has been developed in conjunction with NES and will be evaluated formally at a later stage. A series of peer review events has also been developed to support the ongoing development of pharmacist prescribers. A tailored programme will be developed for pharmacists in acute care.

Patient education will be delivered by an awareness raising event to be held over a week at venues across Fife.

**Recommendation:** An educational programme will be delivered to provide advice on addressing polypharmacy to all staff involved in providing reviews.

**Development of the NHS Fife Polypharmacy Framework**

A Polypharmacy Framework and associated Polypharmacy Delivery Plan will be developed which will support the application of the polypharmacy guidance across Fife. The framework will highlight the medications to target for review to ensure the greatest benefit is delivered to frail patients at risk of adverse events. The framework will bring together existing tools for medication review from the Polypharmacy Guidance, STOPP / STOPP frailty tool and other Health Board guidance documents. Specialties from within NHS Fife will be asked to provide local input to ensure the document is relevant and has local support to encourage application in all settings. The document will provide active links with the Fife Formulary and relevant guidance documents. To facilitate access to polypharmacy resources the ADTC website should provide a dedicated area for polypharmacy.

**Recommendation:** A polypharmacy framework will form the local reference document for Fife and should be easily accessible and supported through the ADTC. The Polypharmacy Implementation Plan will detail priority actions and timelines.

**Liaison with other Health Boards – Scottish Government**

Part of the Clinical Strategy will require the identification of services where critical mass of workforce or specialist skills means considering regional networks of care to ensure Fife patients can access the best clinical expertise possible. Similarly close liaison with other Health Boards on how they address polypharmacy will be undertaken. The International SIMPATHY (Stimulating Innovation Management of Polypharmacy and Adherence in The Elderly) trial hosted by Scottish Government will formalise sharing of best polypharmacy practice to share what works well with other countries and organisations. The first step of this process as part of the Effective Prescribing Programme – Polypharmacy Project will establish the most clinical and cost effective model(s) for the delivery of polypharmacy reviews. This will involve seeking representation from each Health Board. A project group will be established to develop service model(s) and a reference group established to provide assurance. NHS Boards will be asked to nominate a link person for the NHS Board to participate in the reference group.
9 Polypharmacy Reviews through GMS Contract

It is unclear where polypharmacy review activity will be sited in the revised GMS contract after the dismantling of the Quality and Outcomes Framework. However, initial indications are that Anticipatory Care Planning and polypharmacy reviews will be included in some form within the contract. This will allow an opportunity to continue to address polypharmacy in the priority patient groups highlighted.

GPs and practice staff play an essential role in anticipatory care; preventing hospital admission; and maintaining people with complex needs at home for as long as possible. GP practices have started to come together to discuss how they might organise themselves into collectives or clusters to support the development of new models and deliver services and care plans in partnership with local statutory and non statutory providers in care and local communities. Consideration will be given to how multidisciplinary polypharmacy activity in Primary Care can be best delivered across the new cluster model of working.

10 Role of Pharmacy in managing polypharmacy

Effective management of inappropriate polypharmacy is best addressed with a multidisciplinary approach and involvement of clinical pharmacists to support GP practices and hospital specialities is recommended. The Polypharmacy Guidance DL (2015) 004 links the guidance to the national action plan for pharmacy - Prescription for Excellence particularly around the implementation of pharmacist support for GPs carrying out face-to-face patient reviews. Health Boards have been tasked with delivering pharmaceutical care as a means of building capacity to manage polypharmacy by using prescriber pharmacists to provide patient polypharmacy clinics.

Primary Care Pharmacy: NHS Fife has been proactive in embracing this approach seeing the introduction of new patient clinics conducted by the prescriber pharmacists already embedded in GP Practice teams. The purpose of the clinics is not to undertake one off reviews but to continue to manage the patient’s medication for long-term conditions in partnership and collaboration with the patient’s GP. Boards were advised that appropriately qualified pharmacists should be used in the management of polypharmacy. Links will continue to be developed to support ICASS and H@H patients identified as benefiting from review of medication.

The initial Clinical Capacity monies that supported the development of the service will enable half of the practices in Fife to receive the service. The polypharmacy service will continue to develop as resource allows but pharmacist-polypharmacy activity will be integrated into the development of the GP Practice Clinical Pharmacist role to support practices with a greater level of clinical pharmacy input. The formation of GP clusters over 2016 – 2018 will yield opportunities to tailor pharmacist-polypharmacy activity to best meet the needs of practices in clusters. This will be reviewed when the structure becomes clearer.

11 Prescription For Excellence: Developing Clinical Capacity In NHS Pharmaceutical Care, Scottish Government, 2014
Recommendation: The plans to expand the existing pharmacist-led polypharmacy clinics will continue but with full integration in the GP practice Clinical Pharmacy role.

**Hospital Pharmacy:** Greater involvement of hospital pharmacists in supporting polypharmacy activity within the hospital / hospital @ home setting is recommended. This is supported by the Care of Older People in Hospital Standards\(^\text{12}\). Standard 6 relates to provision of pharmaceutical care contributing to the safe provision of care for older people in hospital and will result in the patient obtaining optimal outcomes from treatment with medicines and eliminate adverse events. This is particularly important for patients with complex health issues, including multi-morbidities. NHS Fife will ensure systems and processes are in place to provide pharmaceutical care, and implementation of national polypharmacy guidance.

It is proposed that incorporating medication regimen simplification into routine clinical pharmaceutical care for older hospital in-patients should be applied in all in-patient facilities across Fife. There is a potential role for both pharmacists and pharmacy technical staff in contributing to the simplification process. This process can occur at admission (as part of medication reconciliation), during the inpatient stay, and at discharge (as part of discharge prescription review and reconciliation).

**Recommendation:** Greater involvement of the hospital clinical pharmacy resource in addressing polypharmacy is required, and closer cross-boundary working with primary care pharmacy to facilitate joined up pharmaceutical care.

**Community Pharmacy:** A particularly important role for pharmacists involved in the polypharmacy review process in hospital or primary care is to discuss relevant issues with the patient’s community pharmacist. Community Pharmacy provide a fundamental role in supporting patients when their medication has stabilised through the Chronic Medication Service (CMS). In addition, the Pharmaceutical Care Record (PCR) used in the CMS may be a useful tool in assisting to identify patients who may benefit from polypharmacy review. Two way communication must be established. This will involve ongoing patient review by the community pharmacy and communication and collaboration with the patient’s GP practice. Community Pharmacy ideally will be informed and involved when the patient transfers to and from all settings.

Community pharmacist prescribers will be integrated into the GP Practice Clinical Pharmacy development to provide prescribing clinics that meet the needs of NHS Fife to undertake activity e.g. in polypharmacy reviews.

**Recommendation:** Community pharmacy will provide a fundamental role in ongoing review of patients through the CMS.

\(^{12}\) Care of Older People in Hospital Standards – June 2015; Healthcare Improvement Scotland 2015
In all aspects of pharmacy involvement it is important to ensure that the patients’ ability to manage their medicines safely is assessed and pharmacy staff are well placed to undertake such assessments. The role of the pharmacy technician within the polypharmacy process in both acute and primary care will be expanded. NHS Fife will liaise and collaborate with other boards already using pharmacy technicians as part of the polypharmacy review process.

11 Polypharmacy Reviews in care homes

In Fife the average length a person stays in a care home as a long stay resident is 2.1 years. To improve the safe and effective use of medicines by people of all ages who live in care homes, clear systems and processes are needed across the medicines management pathway. People who live in care homes in Fife should have medication reviews undertaken by a multidisciplinary team. Their multiple conditions can change, and the medicines that residents receive to treat these conditions need to be reviewed regularly to ensure that they remain safe and effective and at least annually.

The Care Home Enhanced Service currently ensures polypharmacy reviews for patients in a care home setting in Fife. This is currently running to the end of March 2016 and with the transitional arrangements for the GMS contract this will be extended to the end of March 2017. The existing Care Home Enhanced Service places the role of medication review solely with the GP though future arrangements should encourage multidisciplinary review13.

It has been proposed by the Royal Pharmaceutical Society of Scotland that integrating a dedicated pharmacist role into care homes and aligning one community pharmacy and one GP practice to each care home should be a building block for change14.

Recommendation: The Care Home Enhanced Service for Fife should be amended or replaced to encourage the multidisciplinary approach to medication review.

12 Reporting Polypharmacy Activity

Each Health Board has a requirement to report on polypharmacy activity to the Scottish Government as part of the Effective Prescribing programme. To ensure reporting is managed efficiently the use of suitable technology will help us capture evaluation / impact data on the reviews that are being undertaken. This will be possible more efficiently with Emis web. NHS Fife is currently undertaking a programme to roll out Emis web across Emis practices. Use of the NHS Prescribing Information System (PIS) will continue to allow safety and quality prescribing information to be analysed to let us compare trends in prescribing in patients having had polypharmacy reviews.

13 Managing Medicines in Care Homes. NICE quality standard 85, guidance.nice.org.uk/qs85
14 Royal Pharmaceutical Society for Scotland Manifesto, 2016
Greater use of the information contained within the eKIS, ECS and electronic discharge information will develop as systems become more integrated across boundaries. Ideally this will involve highlighting polypharmacy review activity to ensure that outcomes from the review process are not lost.

**Recommendation:** NHS Fife will use technology to develop an efficient way of reporting on polypharmacy activity.

13 Implementation of the Polypharmacy Strategy

Implementation of the Polypharmacy Strategy will be taken forward and monitored by the Polypharmacy Steering Group. Annual work plans based on this Strategy will be developed and reported through the Polypharmacy Steering Group. Progress will be reported to the Area Drug and Therapeutic Committee and the NHS Fife Frailty Steering Group.

David Binyon
Lead Pharmacist - Polypharmacy

Dec 2016

**Addressing Polypharmacy in Fife**

**PRIMARY CARE POLYPHARMACY ACTIVITY**
Make use of GMS arrangements and pharmacist activity to implement national guidance to address inappropriate polypharmacy. Use Community Pharmacy for continued monitoring through CMS. Multidisciplinary input to care homes

**PREVENTION OF POLYPHARMACY**
Develop culture of incorporating advice around how medicines should be reviewed and where appropriate discontinued within guidance process. Challenge all clinicians when starting a medicine to stop a medicine. Clinical Strategy

**ACUTE CARE**
When acute care is needed addressing inappropriate polypharmacy and simplification of medicine regimens should be incorporated into the admission and discharge process. Multidisciplinary approach. Communication strategy

**INTERMEDIATE / INTEGRATED CARE SETTING**
Support for patients moving through the ICASS services including Community Hospitals and H@H to have multidisciplinary reviews of their polypharmacy. Integrate ICASS services with primary care review activity
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Desired Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Recommendation: All patients reviewed should have the Polypharmacy read code (8B31B) attached to their patient record</td>
<td>Allows easy and consistent identification of polypharmacy activity in practice</td>
</tr>
<tr>
<td>2 Recommendation: NHS Fife encourages and supports healthcare professionals to work collaboratively with the patient to jointly take decisions reflecting patient preferences for treatment which may result in some medicines being declined by the patient</td>
<td>Will prevent polypharmacy and reduce waste and adverse effects</td>
</tr>
<tr>
<td>3 Recommendation: NHS Fife supports and implements the use of a ‘Start a Medicine – Stop a Medicine’ challenge to prescribers when new medicines are prescribed.</td>
<td>Will prevent polypharmacy and reduce adverse effects</td>
</tr>
<tr>
<td>4 Recommendation: NHS Fife encourages avoiding future polypharmacy by incorporating advice around when and how medication should be withdrawn should the patient not gain the desired benefit.</td>
<td>Will prevent polypharmacy and reduce waste and adverse effects</td>
</tr>
<tr>
<td>5 Recommendation: NHS Fife will target patients resident in care homes for polypharmacy review; patients over 75 years of age on 10 or more medicines ideally with a SPARRA score between 40-60% or patients at high clinical risk of unscheduled hospital admission and patients with a history of falls.</td>
<td>Will ensure national and organisational requirements are met. Patients will have reduced risk of adverse effects</td>
</tr>
<tr>
<td>6 Recommendation: NHS Fife will use the relevant incentives to direct polypharmacy activity to improve patient safety outcomes by limiting high risk medicine use in frail patients</td>
<td>Reduced adverse effects and improved safety</td>
</tr>
<tr>
<td>7 Recommendation: Use of a screening tool such as the electronic frailty index to identify frail patients will be applied and a defined pathway developed for primary care patient management.</td>
<td>Targets activity to those frail patients likely to benefit most from review and management</td>
</tr>
<tr>
<td>8 Recommendation: NHS Fife will examine the best options to ensure that accurate and timely communication of polypharmacy review information is available across care boundaries. NHS Fife will examine and implement the best options to ensure that accurate and timely communication of polypharmacy review information is available across care boundaries.</td>
<td>Reduced adverse effects and improved safety, reduced waste</td>
</tr>
<tr>
<td>9 Recommendation: An educational programme will be delivered to provide advice on addressing polypharmacy to all staff involved in providing reviews.</td>
<td>Increased awareness of the problems associated with polypharmacy and how to address them – lowers adverse effects</td>
</tr>
<tr>
<td>10 Recommendation: A polypharmacy framework will form the local reference document for Fife and should be easily accessible and supported through the ADTC. The Polypharmacy Delivery Plan will detail priority actions and timelines.</td>
<td>Highlights which drugs to be targeted as supported by local specialities</td>
</tr>
<tr>
<td>11 Recommendation: The plans to expand the existing pharmacist-led polypharmacy clinics will continue but with full integration in the GP practice Clinical Pharmacy role.</td>
<td>Makes best use of primary care pharmacy resource to provide best level of support to practices</td>
</tr>
<tr>
<td>Recommendation</td>
<td>More efficient working between hospital-primary care. Improves outcomes of reviews</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>12</td>
<td>Greater involvement of the hospital clinical pharmacy resource in addressing polypharmacy is required, and closer cross-boundary working with primary care pharmacy to facilitate joined up pharmaceutical care.</td>
</tr>
<tr>
<td>13</td>
<td>The Care Home Enhanced Service for Fife should be amended or replaced to encourage the multidisciplinary approach to medication review.</td>
</tr>
<tr>
<td>14</td>
<td>NHS Fife will use technology to develop an efficient way of reporting on polypharmacy activity.</td>
</tr>
</tbody>
</table>