What evidence and guidance is there to support anticipatory prescribing (AP)?

Specialist Pharmacy Service Community Health Services Network Meeting, 14th May 2019

Dr. Richella Ryan, Clinical Lecturer in Palliative Medicine
Outline of session

1. Background to AP

2. Recent and current research studies

3. Round table discussions based on local documents
AP- definitions and background

- Anticipatory prescribing is the prescription and dispensing of injectable medications to a named patient, in advance of clinical need, for administration by suitably trained individuals if symptoms arise in the final days of life.

- Injectable medications typically prescribed for:
  - pain (opioid)
  - nausea and vomiting (anti-emetic)
  - agitation (midazolam)
  - respiratory secretions (anticholinergic)

- UK-wide practice, endorsed by ‘Care of dying adults in the last days of life’, NG31, NICE 2015
Evolution of AP from hospice to community

- Hospice
  - Standard practice

- Hospital
  - Liverpool Care Pathway (1997-2014)

- Community
  - Mount Vernon Cancer Network Pilot (Amass 2005)

- NICE (2004) Improving supportive and palliative care for adults with cancer
- DOH(2004): Securing proper access to medicines
- NHS End of Life Care Programme (2006)
- National End of Life Care Strategy (2008)
- NICE (2015) Care of dying adults in the last days of life
AP- why?

1. ‘to enable rapid relief at whatever time the patient develops symptoms’ (NICE QS144, 2017)
2. to ‘prevent distressing hospital admissions’ (NG31, 2015)

1. Difficulty accessing medications during OOH period (Thomas, 2001)
2. Change in the nature of OOH care: less continuity
4. NHS financial constraints

K. Thomas (2001). Out of hours palliative care in the community: continuing care for the dying at home
DOH (2000): Raising Standards for Patients: new partnerships in out-of-hours care
Safety concerns from families- hospital

- **Lack of assessment:** ‘proper clinical assessment of the need for medication ceased’

- **Over-sedation:** “There was a feeling that the drugs were being used as a ‘chemical cosh’ which diminished the patient’s desire or ability to accept food or drink”

- **Hastening of death:** ‘whether true or not, many families suspected that deaths were hastened by the premature or over-prescription of strong pain killing drugs or sedatives’
Heightened concerns following Gosport report, June 2018

• ‘the lives of over 450 people were shortened as a direct result of the pattern of prescribing and administering opioids’ (Jones, J. 2018)

• ‘The findings of the Gosport Independent Panel are shocking, and will raise further concerns for patients, carers, and the wider population about the use of opioid medication’ (Association of Palliative Medicine statement, 2018)’
Recent and current research

1) Systematic review of the AP literature

2) UK-wide service evaluation of local procedures and policies

3) Anticipatory prescribing workshops: views of healthcare professionals about best practice and safety
Anticipatory prescribing of injectable medications for adults at the end of life in the community: A systematic literature review and narrative synthesis

By Ben Bowers, Richella Ryan, Isla Kuhn, Stephen Barclay

The National Institute for Health Research School for Primary Care Research (NIHR SPCR) is a partnership between the Universities of Bristol, Cambridge, Keele, Manchester, Newcastle, Nottingham, Oxford, Southampton and University College London.
With regard to anticipatory prescribing of injectable medications for adults in the community approaching the end of their lives:

1. What is current practice?
2. What are the attitudes of patients?
3. What are the attitudes of family carers?
4. What are the attitudes of community healthcare professionals?
5. What is its impact on patient comfort and symptom control?
6. Is it cost-effective?
This research is funded by the National Institute for Health Research School for Primary Care Research (NIHRSPCR). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.

### Methods

- **2684 titles screened by BB**
- **389 abstracts screened independently by BB and RR**
- Papers included if they presented empirical research for adults receiving care at home in the community
- Quality of included papers appraised using Gough’s ‘Weight of Evidence’ Framework (2)
- **Data synthesis used a narrative approach** (3)
Results: characteristics of included papers

- **Thirty four papers**, reporting on 31 studies, included: 24 research papers and 10 conference abstracts.

- Quality rating: 3 high quality, 22 medium quality and 9 low quality

- Papers reported on practice in the **UK (n=28)**, Australia (n=5), and Canada (n=1).

- Published papers’ methods included:
  - Qualitative interviews with healthcare professionals (n=15)
  - Qualitative interviews with family carers (n=2)
  - Retrospective patient notes reviews (n=7)
  - Staff or family carers questionnaires (n=6)
  - Clinical audits (n=4)

*This research is funded by the National Institute for Health Research School for Primary Care Research (NIHRSPCR). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.*
What is current practice?

• Current practice varies both across countries and within the UK

• In the UK, anticipatory prescribing appears to be widespread but there are no reliable frequency data on prescribing and administration rate \(^{(8-13)}\)

  • Reported prescribing rates vary depending on study design, community care setting studied, patient population studied and publication date
  • % of predictable deaths with AP in place: 16% of GP surgery deaths \(^{(10)}\), 63% of specialist pall care community deaths \(^{(8)}\)

• Length of time from prescription to death variable: ranging from a few days \(^{(14, 5)}\) to several weeks \(^{(4, 6, 7)}\)

---

*This research is funded by the National Institute for Health Research School for Primary Care Research (NIHRSPCR). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.*
What are the attitudes of patients and family carers?

**Patients:**
- No studies have investigated patients’ experience of or views towards AP

- One audit (7) and one service evaluation (16) reported that AP was well received by patients

**Family carers:**
- No studies have investigated family carers’ views and experiences of standard UK practice.

- Five studies evaluate family carer administration of injectable medications (17-21)
  - Although family carers appreciate being able to provide symptom relief (17-21), some struggle with the responsibility involved (18, 19)

*This research is funded by the National Institute for Health Research School for Primary Care Research (NIHRSPCR). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.*
What are the attitudes of community healthcare professionals?

- Twenty one studies explore the attitudes and experiences of HCP (GPs and nurses)
- Broadly positive experiences conveyed (6, 16-16, 22-26), most believing that AP:
  - offers reassurance to patients, family carers and healthcare professionals
  - provides timely and effective symptom control
  - helps prevent crisis hospital admissions
- Some safety concerns about the potential for drug errors or misuse (4, 23, 24, 30)
Is it cost-effective?

• Robust evidence of cost-effectiveness is absent, although it is a low-cost intervention.

• The typical cost of supplying two to three days’ worth of medication in the UK is between £22.12\(^{14}\) and £30.26 per patient\(^{30}\).

• Seven studies of low to medium quality have examined the relationship between AP and service use, but no controlled comparisons:
  • Two small scale audits\(^{7,21}\) and one service evaluation\(^{16}\) identified that most patients with an anticipatory medication prescription were not admitted to hospital for symptom control at the end of life.
Conclusions

1. Current AP practice and policy is based on an inadequate evidence-base.

2. The views and experiences of patients and their family carers towards AP needs investigation.

3. Further research is needed to investigate the impact of AP on patients’ symptoms and comfort, patient safety, and hospital admissions.

This research is funded by the National Institute for Health Research School for Primary Care Research (NIHRSPCR). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.
UK-wide service evaluation of local procedures and policies

Dr. Richella Ryan, Ben Bowers, Anna Spathis, Dr. Stephen Barclay
Section 1.6: Care of dying adults in the last days of life, NG31, 2015

• Use an individualised approach to prescribing anticipatory medicines (AMs)
• Should be prescribed for people who are likely to need symptom control in the last days of life
• Ensure that suitable AMs are prescribed as early as possible
• Review AMs as the dying person’s needs change
• Before AMs are administered, review the person’s individual symptoms
• Monitor for any benefits and side effects at least daily
Scottish Palliative Care Guidelines: AP (updated 2016)

• If a patient is **in the last days of life** at home or in a care home, it is usually helpful if medication for end-of-life symptom control is available...

• The decision to prescribe medication for use in the future should always be based on a **risk/benefit analysis**. Reasons for not providing anticipatory medicines include risk of drug diversion or misuse.

• **Specific guidance for prescription** of each type of medication

• **Specific guidance for renal failure**

• **Linked to practice points:**
  • Opioid analgesics should not be used to sedate dying patients
  • Sudden increase in pain or agitation; exclude urinary retention or other reversible causes
But....

- How do we *individualise* anticipatory prescribing?
- How do we decide who is ‘likely to need symptom control in the last days of life’?
- What does ‘*as early as possible*’ mean?
- What does a ‘review’ or ‘risk-benefit’ analysis consist of?
- Who is making these decisions?
Current practice - complex system

- Decision to prescribe
  - Prognosis
  - Risks
  - Patient wishes
  - When??

- Prescribing and dispensing process
  - FP10
  - DA chart
  - Equipment

- Storage and monitoring
  - Risk
  - Supply
  - Response
  - Wishes

- Assessment and administration
  - Reversibility
  - Dx of dying
  - Wishes

- Post-death procedures
  - Return to pharmacy
  - Disposal
  - Audit

GP, DN, Pall care team, pharmacy, patient, carer
Hospital, hospice, home, care home

Communication between services and with patient/carer
Aim and objectives:

• To investigate the role of local/regional policies and procedures in guiding anticipatory prescribing practice in end of life care across the UK, particularly focusing on community practice, including the transition from hospital to community.

• Q1: How is AP practice governed and facilitated?
• Q2: What is the nature and scope of documents governing AP practice?
• Q3: What is current AP practice, according to policy?
Methods

• Simple UK-wide scoping survey:
  • England: random sample of 55 out 207 CCG areas
  • Scotland: all 14 health board areas
  • Wales: all 7 health board areas
  • NI: all 4 local commissioning groups

• Collection of documents from respondents

• Quantitative analysis of the document frequency/type/domains covered

• Qualitative analysis of document content
Email survey

What types of documents do you have in place in the (CCG name) area to guide and facilitate anticipatory prescribing at the end of life in the community?

In particular, we would like to know if you have any of the following (please indicate with ‘yes’ or ‘no’ if possible):

1. Policy (yes/no)
2. Guidance (yes/no)
3. Standard operating procedure (yes/no)
4. Drug authorisation chart (also known as a MAR or community prescription chart) (yes/no)
5. Patient information leaflets (yes/no)
6. Any other supporting documents (yes/no)
Results England - response

- 48/122 identified stakeholders responded, representing 47 of the 55 CCGs sampled (85% CCG response rate), from all 4 regions of England.

- All respondents (n=48) were senior professionals from a variety of disciplinary backgrounds: medical consultants (48%), senior palliative care nurses (23%), pharmacists (13%), CCG managers or clinical leads (8%) and other (8%).
Results England: document type and frequency (n=47 CCG areas)

Documents collected from 31 out of the 47 responding CCG areas → document analysis
<table>
<thead>
<tr>
<th>✓</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescribing</td>
<td>Patient selection</td>
</tr>
<tr>
<td>Symptom assessment</td>
<td>When to prescribe</td>
</tr>
<tr>
<td>Who to call for help</td>
<td>Conditions for administration</td>
</tr>
<tr>
<td>Monitoring</td>
<td></td>
</tr>
<tr>
<td>Roles and responsibilities</td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>Process aspects: equipment, disposal etc.</td>
<td></td>
</tr>
</tbody>
</table>
Current practice - complex system

Decision to prescribe
- Prognosis
- Risks
- Patient wishes
- When??

Prescribing and dispensing process
- FP10
- DA chart
- Equipment

Storage and monitoring
- Risk
- Supply
- Response
- Wishes

Assessment and administration
- Reversibility
- Dx of dying
- Wishes

Post-death procedures
- Return to pharmacy
- Disposal
- Audit

GP, DN, Pall care team, pharmacy, patient, carer
Hospital, hospice, home, care home

Communication between services and with patient/carer
Document analysis - emerging themes:

Facilitatory  Restrictive

Different approaches
Document analysis - emerging themes

- Dosing intervals
- Max dose
- Terminology
- Starting doses
- Context
- Cross-setting working

Lots of variation
Next steps.....

• Complete quantitative and qualitative analysis of England documents

• Complete data collection from Scotland, Wales, NI
Anticipatory prescribing workshops

Research team: Dr. Stephen Barclay, Dr. Richella Ryan, Ben Bowers, Dr. Anna Spathis and the P&EOLC group at the University of Cambridge

In collaboration with the Association of Palliative Medicine

Funded by Marie Curie Design to Care project
Aim

In relation to AP practice in the community, to investigate healthcare professionals’ views concerning:

1) What constitutes best practice
2) The potential safety issues

• Identification of the components of AP practice in need of improvement and guidance
Methods

• Two workshops: London (3rd April) and Cambridge (1st May)

• Total of 30 focus groups involving:
  • Nurses: community nurses and specialist pall care nurses
  • Doctors: consultants and GPs
  • Pharmacists
  • Other: PPI, policymakers, researchers

• All audio-recorded, awaiting transcription

• Qualitative analysis using framework approach planned
Preliminary feedback

• Lots of variation in practice- some good, some concerning

• Consensus that more guidance is needed

• Plan for development of professional guidance to supplement the current macro-level NICE guidance

• In conclusion, lots of work to be done!
Round table discussions

• With respect to your local documents, discuss:
  1. Areas of similarity
  2. Areas of divergence
  3. Aspects lacking in clarity

• Please summarise main findings on the paper provided

• Please nominate 1 person to feedback to the wider group
Acknowledgements

• University of Cambridge P&EOLC research team:
  • Dr. Stephen Barclay (P&EOLC research group lead)
  • Dr. Anna Spathis
  • Ben Bowers

• Cambridge Engineering Design Centre and the Marie Curie Design to Care project

• Association of Palliative Medicine

• NIHR School for Primary Care (Ben Bowers’ PhD studentship)

• East of England Deanery, Health Education England (Richella Ryan’s clinical lectureship)
References


This research is funded by the National Institute for Health Research School for Primary Care Research (NIHRSPCR). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.
This research is funded by the National Institute for Health Research School for Primary Care Research (NIHRSPCR). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.