PUNs and DENs Notebook

Improving Medical Practice by Assessing Current Evidence

www.qualitymk.nhs.uk
Puns and Dens

Patients Unmet Needs and Doctors Educational Needs

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Introduction

The aim of this booklet is to provide an easy to use notebook to keep track of your clinical questions that arise during a consultation, PUNs and DENs, with pointers towards how to find evidence based answers and put them into practice.

Why use this booklet?

- Uncovers previously unknown gaps in your knowledge and allows them to be filled
- Targets your learning towards clinical need
- Provides discussion material for practice meetings /IMPACTE groups
- Provides evidence of continuing learning for appraisal and revalidation
- Promotes use of evidence based materials for answering clinical questions
- Easy to use guidelines on how to assess a paper
- Easy to keep note of clinical questions
- Promotes assessment of materials leading to changes in practice that are evidence based
- Easy to use reference materials on evidence based resources

IMPACTE groups were designed to make discussion of clinical evidence relevant and accessible to a wider group of clinicians, emphasising the impact of the findings on practice - Improving Medical Practice by Assessing Current Evidence.

The IMPACTE toolkit has been produced to support the groups and this booklet has been developed from the Toolkit to provide you with a useful working tool.

This booklet was developed by the Quality:MK IMPACTE team - enabling evidence based practice across primary care in Milton Keynes.
Chief Knowledge Officer, Sue Lacey-Bryant, NHS Milton Keynes

www.qualitymk.nhs.uk/impacte_groups.htm
PUNs and DENs

Consultation

Clinical question arises from consultation

Quick access to simple knowledge

Clinical dilemma

Patients Unmet Need
PUN

Doctors Educational Need
DEN

Look up answer on evidence based resource
e.g. http://cks.library.nhs.uk
http://england.mapofmedicine.com
http://www.gpnotebook.co.uk

Undertake educational module
e.g. BMJ Learning

Apply evidence to patient as appropriate

Formulate an answerable clinical question

Track down the best evidence using resources such as
http://www.evidence.nhs.uk

Critically appraise evidence for validity and impact

Integrate into clinical expertise and patient values

Apply evidence to practice as appropriate
Work sheets

Patient ID:

Question

☐ PUN quick access to simple knowledge

☐ DEN Clinical dilemma

---

Can you formulate a PICO for this question to give you search terms

Population/Setting

Intervention

Comparison (optional)

Outcome

---

Where did I search? (see list at the back for full details)

Clinical knowledge summaries http://cks.library.nhs.uk
Map of Medicine http://england.mapofmedicine.com
GP Notebook http://www.gpnotebook.co.uk
NHS Evidence http://evidence.nhs.uk
National Prescribing Centre / MeReC http://www.npc.co.uk
NICE http://nice.org.uk
Other
Results / Clinical bottom line
Is this new evidence (or old evidence not yet acted on) that could have an impact on patient care? / Are the results credible and clinically significant / is there a large variation

What is the answer to my question

Reflection
Is there a variation to my current practice / what barriers exist to its implementation / how will my practice change as a result of answering this question.

What actions am I going to take
Do I need to find more evidence/ have training / undertake an audit / take advice from specialists / spread to other colleagues / change our practice management / take topic to an IMPACTE group /
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## Core Resources for Evidence Based Practice

### Decision Support Systems

<table>
<thead>
<tr>
<th>Resource</th>
<th>Description</th>
<th>Requires login via Athens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map of Medicine (MoM)</td>
<td><a href="http://england.mapofmedicine.com">http://england.mapofmedicine.com</a></td>
<td>Requires login via Athens</td>
</tr>
</tbody>
</table>

“The Map of Medicine is a tool for achieving clinical consensus throughout a healthcare community. It:

- Delivers current, evidence-based clinical knowledge from the world's most authoritative sources, constantly reviewed
- Displays this knowledge in an easy-to-use Pathways format, reflecting the patient journey
- Provides a framework for creating local Pathways using modified or new content specific to a healthcare community.”

### Summaries of evidence

<table>
<thead>
<tr>
<th>Resource</th>
<th>Description</th>
<th>Requires login via Athens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Knowledge Summaries (CKS)</td>
<td><a href="http://cks.library.nhs.uk/">http://cks.library.nhs.uk/</a></td>
<td>No</td>
</tr>
</tbody>
</table>

“The NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information and practical ‘know how’ about the common conditions managed in primary care. They are aimed at healthcare professionals working in primary and first-contact care. CKS provides quick answers to real-life questions that arise in the consultation, linking to detailed answers that clearly outline the evidence on which they are based.”

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<tr>
<td>GPNotebook</td>
<td><a href="http://www.gpnotebook.co.uk/">http://www.gpnotebook.co.uk/</a></td>
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“GPnotebook is an online encyclopaedia of medicine that provides a trusted immediate reference resource for clinicians in the UK and internationally. Updated continually, our database consists of over 26,000 pages of information. Fast and reliable, many doctors use GPnotebook during the consultation.”

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“This service provides rapid access to information for everyone working in health and social care – it helps you search, sort and sift a wide variety of information. It incorporates the former National Library for Health website, retaining most of the services with which you may be familiar.”

For more information see details under Athens registration.

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</thead>
<tbody>
<tr>
<td>Specialist Collections</td>
<td>TRIP</td>
<td><a href="http://www.tripdatabsae.com">http://www.tripdatabsae.com</a></td>
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</table>

Welcome to the TRIP database, the Internet’s leading resource for Evidence-based medicine. Allowing users to rapidly identify the highest quality clinical evidence for clinical practice.

### Drug Information:

“NeLM is the largest medicines information portal for healthcare professionals in the NHS. It aims to promote the safe, effective and efficient use of medicines. This free service has been in operation since 1998 (originally as Druginfozone) and is updated daily. The site has a wide range of information products, including news, evidence-based reviews on drugs and drug therapy and health promotion material. It also provides a facility for sharing practice. Much of the current content is provided by the NHS pharmacy medicines information service (UKMi) – see ukmi.nhs.uk for more information about the network.”

b) National Prescribing Centre (incl. MeReC bulletins)  
[http://www.npc.co.uk](http://www.npc.co.uk)

“Supporting high quality cost-effective prescribing and medicines management across the NHS to help improve patient care and service delivery”

MeReC bulletins  [http://www.npc.co.uk/ebt/merec.htm](http://www.npc.co.uk/ebt/merec.htm)

“MeReC Publications are high quality resources useful to a wide range of healthcare professionals. They provide concise, evidence-based information about medicines and prescribing-related issues, which can inform prescribing practice, update professional knowledge and help support healthcare planning.”


“NPCi is a new and radically different NHS learning resource designed specifically for busy health care professionals and managers. The content covers prescribing, therapeutics & medicines management. The information is contained within this virtual building. This makes searching for content really intuitive. The philosophy here is ‘bite sized chunks’ – small amounts of the best of the summarised evidence and information on topics you are likely to need because you encounter those conditions or situations often. To supplement your knowledge you can also listen to recorded workshops, read text, test your knowledge and join in discussions.”

**Synopses of evidence based journal articles**


“BMJ Group and McMaster University's Health Information Research Unit are collaborating to provide you with access to current best evidence from research, tailored to your own health care interests, to support evidence-based clinical decisions.”

**Evidence Based Medicine journal (EBM)**  [http://ebm.bmj.com](http://ebm.bmj.com)

“Evidence-Based Medicine surveys a wide range of international medical journals applying strict criteria for the quality and validity of research. Practising clinicians assess the clinical relevance of the best studies. The key details of these essential studies are presented in a succinct, informative abstract with an expert commentary on its clinical application.”

**Syntheses of primary literature – evidence based reviews**
<table>
<thead>
<tr>
<th>Source Description</th>
<th>Website</th>
<th>Relevant?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cochrane Library (Systematic reviews)</td>
<td><a href="http://www.thecochranelibrary.com">http://www.thecochranelibrary.com</a></td>
<td>No</td>
</tr>
<tr>
<td>“The Cochrane Library contains high-quality, independent evidence to inform healthcare decision-making. It includes reliable evidence from Cochrane and other systematic reviews, clinical trials, and more. Cochrane reviews bring you the combined results of the world’s best medical research studies, and are recognised as the gold standard in evidence-based health care.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centre for Reviews and Dissemination</td>
<td><a href="http://www.crd.york.ac.uk/crdweb/">http://www.crd.york.ac.uk/crdweb/</a></td>
<td>No</td>
</tr>
<tr>
<td>“The CRD databases have become a key resource for health professionals, policy makers and researchers around the world. The literature evaluating the effectiveness and cost-effectiveness of health care interventions is growing year on year, and these studies can be difficult and time consuming to identify and appraise. The databases assist decision-makers by systematically identifying and describing systematic reviews and economic evaluations, appraising their quality and highlighting their relative strengths and weaknesses.”</td>
<td></td>
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</tr>
<tr>
<td>“PubMed comprises more than 19 million citations for biomedical articles from MEDLINE and life science journals back to 1948. PubMed includes links to full-text articles which may be found in other databases such as PubMed Central or at publisher web sites.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guidelines</td>
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<td>NICE</td>
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<td>“The National Institute for Health and Clinical Excellence (NICE) is the independent organisation responsible for providing national guidance on the promotion of good health and the prevention and treatment of ill health. NICE guidance aims to ensure that the promotion of good health and patient care in local health communities is in line with the best available evidence of effectiveness and cost effectiveness.”</td>
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The evolution of information resources for evidence-based decisions

Adapted from: Of studies, syntheses, synopses, summaries and systems: the "5S" evolution of information services for evidence based health care decisions by R. Brian Haynes
Evidence Based Med. 2006: 11:162-164. Full text available

Best levels of evidence

<table>
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<th>RCT</th>
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<tbody>
<tr>
<td>Etiology</td>
<td>Prospective cohort study</td>
</tr>
<tr>
<td>Differential diagnosis/Symptom prevalence</td>
<td>Prospective cohort study with good follow-up</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>Cross section study</td>
</tr>
<tr>
<td>Prognosis</td>
<td>Inception cohort study</td>
</tr>
<tr>
<td>Cost analysis</td>
<td>Economic analysis</td>
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After: Oxford Centre for Evidence-based Medicine Levels of Evidence (May 2001)
## Notes on appraisal of different types of evidence

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<tr>
<th align="left">Question/Topic</th>
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<tr>
<td align="left">:</td>
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### Evidence used:
- i.e. References

### Type of evidence
- **1**RCT
- **2**Systematic Review
- **3**Qualitative Research
- **4**Guideline

Prompts on how to appraise the different types of evidence, and space for comments are given on the next page.

### What the evidence is about

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</tbody>
</table>

| Is the evidence relevant to our practice? | | Is this a good source of evidence? |
|:------------------------------------------|:-----|
| : | : |

### Results, clinical bottom line and discussion:

- Is this new evidence (or old evidence not yet acted upon) that could have an impact on patient care? Are the results credible and clinically significant? Is there a large variation in current practice? What barriers exist to its implementation?

### Follow-up/further action

<table>
<thead>
<tr>
<th>Follow-up/further action</th>
<th>Action to</th>
<th>Date by</th>
</tr>
</thead>
<tbody>
<tr>
<td>:</td>
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</tbody>
</table>
Appraisal of different types of evidence

1. **RCT**

<table>
<thead>
<tr>
<th>Recruitment</th>
<th>Were the subjects representative of the target population?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocation?</td>
<td>Was the treatment allocation concealed before randomisation, were the groups comparable at the start?</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Follow up over 80%?</td>
</tr>
</tbody>
</table>
| Measurements | Were the outcomes measured with:  
Blinded subjects and assessors and/or  
Objective outcomes? |

**Statistical Results:** eg Risk Reduction (RR), Number Needed to Treat (NNT), Number Needed to Harm (NNH), Confidence Intervals (CI), P-values

2. **Systematic review**

<table>
<thead>
<tr>
<th>Question</th>
<th>Does the research ask a clearly focussed question (PICO) and is it relevant?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Found all studies</td>
<td>Did the search find all of the best evidence? (search strategy/publication bias)</td>
</tr>
<tr>
<td>Appraisal/quality</td>
<td>Have the studies been critically appraised</td>
</tr>
<tr>
<td>Synthesise</td>
<td>Have the results been synthesised with appropriate summary tables and plots?</td>
</tr>
</tbody>
</table>

3. **Qualitative Research**

<table>
<thead>
<tr>
<th>Sampling strategy:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Data collection methods:</td>
<td></td>
</tr>
<tr>
<td>Data analysis methods:</td>
<td></td>
</tr>
<tr>
<td>Relationship between the researcher and participant</td>
<td></td>
</tr>
</tbody>
</table>

4. **Guidelines**

Nationally recognised Guidelines e.g. NICE, SIGN, BTS are assumed to be based on high quality evidence and do not need to be appraised.

**What is an Athens account?**

An NHS Athens account will enable you to access a collection of electronic resources bought for you by the NHS.
Many organisations use the Athens system to ensure only members of their organisation have access to the licensed resources they have purchased for the organisation. This will mean that if you have an academic Athens account and a NHS account you will not necessarily have access to the same resources.

Who can have an NHS Athens account?
- Most staff working within the NHS are eligible to have an NHS Athens account. If you have questions about eligibility please contact the Library.

How do I register for an NHS Athens account?
- Go to: https://register.athensams.net/nhs/nhseng
- Follow the guidelines - enter your organisation or choose South Central England and then select NHS Buckinghamshire and Milton Keynes PCT
- Enter the personal details as requested

Why is an email address essential?.
- Your account activation email will be sent to this email address – this may take 24 hours. Follow the instructions in the email to activate your account
- You can use either your Athens username OR this email address to login to your NHS Athens resources.

How do I manage my NHS Athens account?
You can change the email address, password or organisation details via the My Account tab at the top of the NHS Evidence Health information resources webpage after you have signed in..

What resources are available with an NHS Athens password?
Listed below are a few of the resources available, to see a complete list, go to NHS Evidence Health information resources (http://www.library.nhs.uk/login.aspx) sign in and go to My Library.
- Map of Medicine
  If you log in with Athens username and password you will be able to see the localised Milton Keynes version.
- BMJ Learning
  interactive website designed for all healthcare professionals to support their personal development, learning and CME (Continuing Medical Education) needs.
- British National Formulary (BNF) and British National Formulary for Children
- NHS Evidence healthcare journals collection including
  - BMJ Updated daily, users can also gain access to articles prior to publication in the BMJ Online First section
  - BMJ Journals Collection All 22 BMJ Publishing group journals with current full text.
  - JAMA & Archives Journals http://pubs.ama-assn.org/athens

Where can I get support in using the resources?
Contacts :
Staff Library, Milton Keynes Hospital Tel: 01908 243774 library@mkhospital.nhs.uk
Linda Potter, Primary Care Librarian. Linda.potter@mkhospital.nhs.uk
Where can I get more information or help?

IMPACTE Groups.

IMPACTE Groups are held regularly at a number of local practices and teams. There is also IMPACTE Online, an online forum aimed at non-principal GPs and locums and IMPACTE Central, based at the Postgraduate Centre which is open to all staff in Primary Care. You can find more information at [www.qualitymk.nhs.uk/impacte_groups.htm](http://www.qualitymk.nhs.uk/impacte_groups.htm)

Evidence based medicine

The learning zone at [www.qualitymk.nhs.uk/support_evidence_into_practice.htm](http://www.qualitymk.nhs.uk/support_evidence_into_practice.htm) has a section on elearning resources covering evidence based medicine.

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With thanks to Dr. Sophie Ellis and Ann Skinner who produced this notebook.
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Quality:MK
Evidence based: Primary Care Led : Patient Centred

IMPACTE
Improving Medical Practice by Assessing Current Evidence

www.qualitymk.nhs.uk