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Essential CPD for primary care

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Essential Knowledge Updates

www.elearning.rcgp.org.uk

RCGP Annual Conference 2016

Dr Dirk Pilat Medical Director for eLearning
Dr Chris Elfes EKU Steering Group Chair and EKC Clinical Lead
Dr Thomas Round EKU Development Fellow

RC GP Royal College of General Practitioners

Today’s fantastic session!

eLearning	Dirk Pilat
EKU overview	Thomas Round
EKC Taster	Chris Elfes
Suspected Cancer + Briefings	Thomas Round
Type 2 diabetes + Briefings	Chris Elfes
Chronic heart failure	Dirk Pilat
Bronchiolitis	Thomas Round
EKC answers	Chris Elfes

Any questions?…….or have a rest!

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Continuous professional development for primary care physicians – Why?

- Patients expect rightly expect highest degree of professionalism
- Doctors need to balance traditional values and latest scientific expertise
- Need to respond to educational needs that arise during patient contact and continuously being up to date on the ever shifting evidence base around diagnostic and therapeutic methods
- Particularly difficult for general practitioners (GPs)
- Newly qualified doctors' knowledge not enough to last a life time

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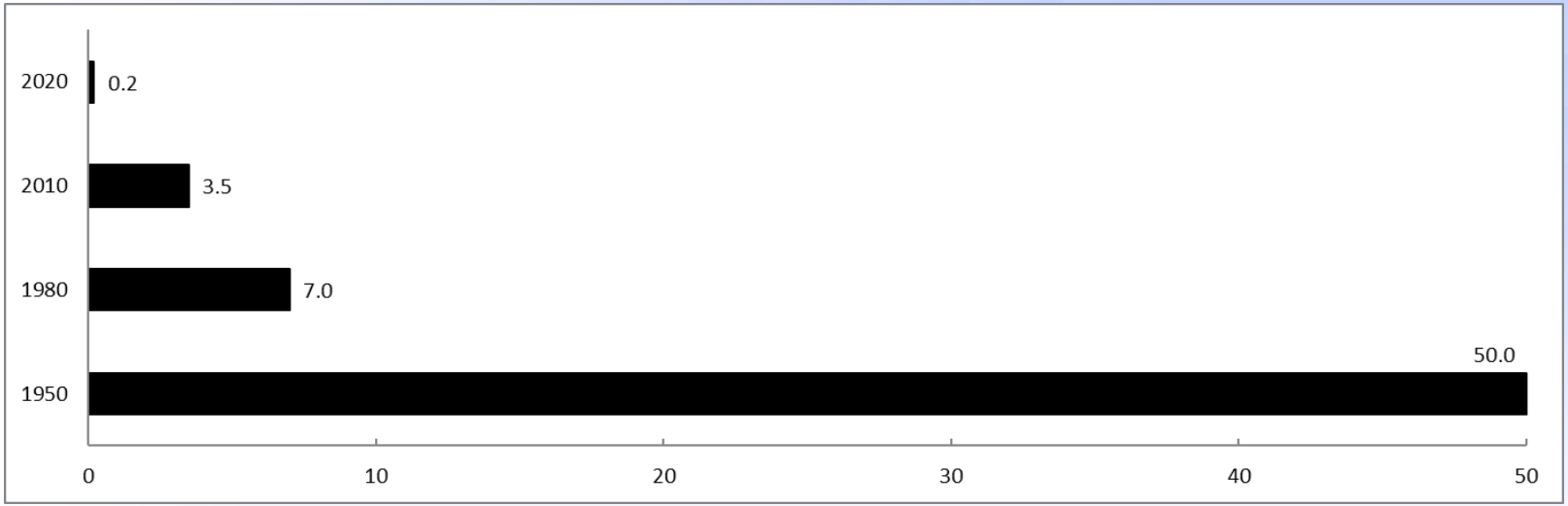
Estimated time for doubling of medical knowledge in years



Densen, P
2011

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CPD in the good old days

- Seminars
- Problem based small group learning
- Journals
- Textbooks
- Conferences
- Journal Clubs

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CPD via elearning: a success story

- National transition to computer-based practice management systems has effectively placed a PC on every GP's desk
- On-line CPD facilitates quick response to perceived educational need arising during a consultation without having to wait for a seminar, book or conference to come around
- Immediacy of internet based learning one of the secrets to its success over the last 15 years and its broad uptake
- No need to plan
- Immediacy of learning

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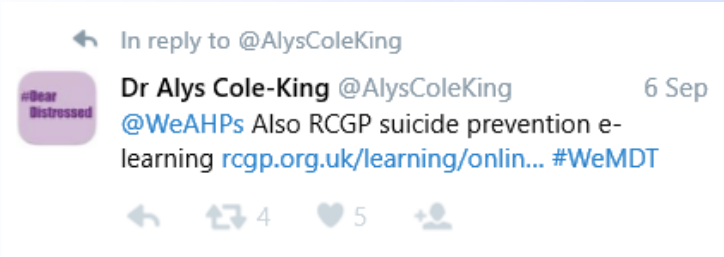
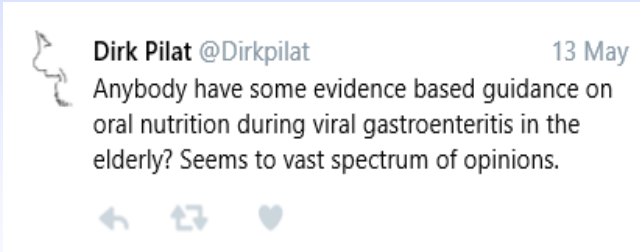
eLearning doesn't have to be alone in front of your PC

- Use practice, journal group and faculty meetings to present, share and discuss new learning
- Extend your personal educational network and use Twitter, Facebook Groups and mailing-lists
- Use your smart devices for spontaneous learning (both formal and informal)





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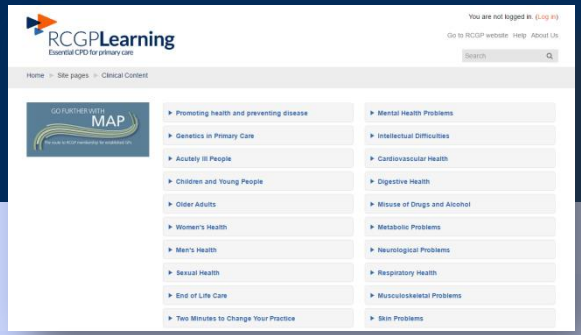
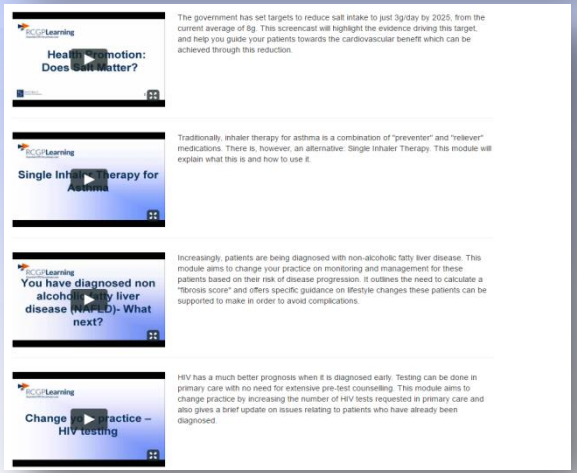
What's on offer?

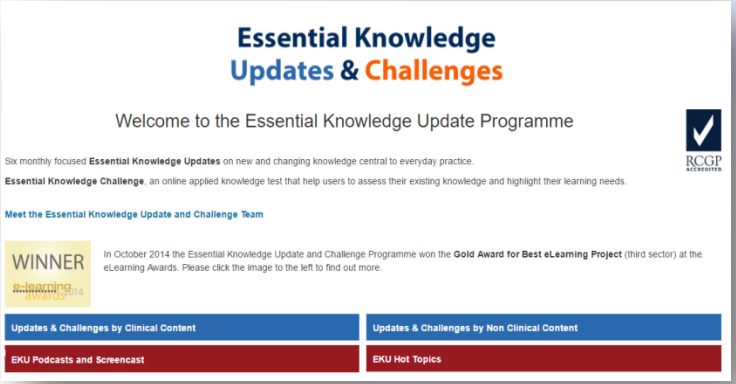
Three different elearning programs for different needs:

- Essential Learning Updates + Challenges
- 2 minutes to change your practice
- 62 in depth courses covering all curriculum statements

All accessible to RCGP members for free







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Essential Knowledge Updates (EKU)

Introduction

Dr Thomas Round, GP and EKU Development Fellow
@drtomround

Essential Knowledge Updates (EKU) Programme

- Since its inception in May 2008, the EKU Programme has now been accessed by over 45,000 users
  - 488 major and minor modules
  - 26 podcasts
  - 12 screencasts
  - 21 hot topics (2015)
  - 3 editions of EKU Journal Watch (2016)
  - 850 Challenge questions.
- The content of the programme covers 96% of the RCGP curriculum
- 66% of the audited content (EKU2-14) is still usable

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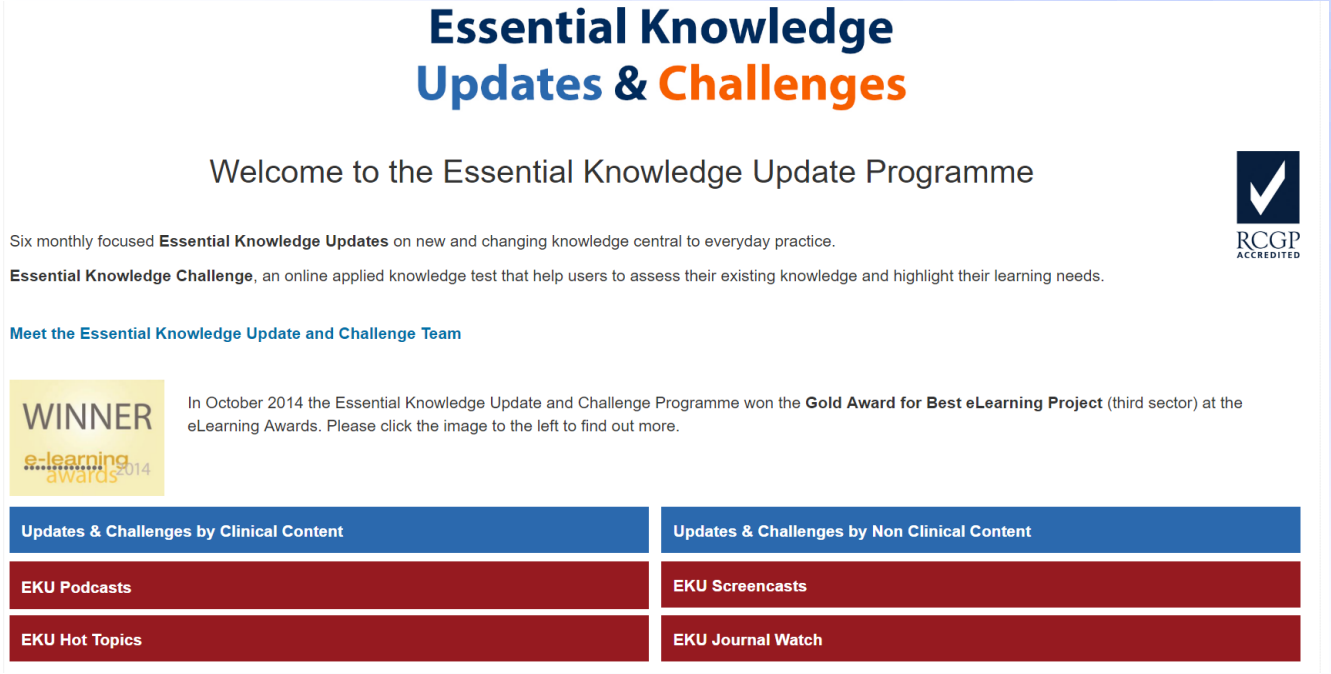
EKU Programme



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EKU Programme

Major Topics

These Updates are based on major items of new and changing knowledge.

You may find it helpful to identify your learning needs before reading the Update by completing the Self Assessment first. Alternatively, you may prefer to complete the Self Assessment afterwards to confirm your learning

- Combined Pharmacotherapy & Behavioural Interventions for Smoking Cessation
  - Self Assessment: Combined Pharmacotherapy & Behavioural Interventions for Smoking Cessation
- Wheeze & Asthma in Young Children
  - Self Assessment: Wheeze & Asthma in Young Children
- Menopause: Diagnosis & Management
  - Self Assessment: Menopause - Diagnosis & Management
- Care of Dying Adults in the Last Days of Life
  - Self Assessment: Care of Dying Adults in the Last Days of Life
- Management of Chronic Heart Failure
  - Self Assessment: Management of Chronic Heart Failure
- Alcohol Use Disorders
  - Self Assessment: Alcohol Use Disorders

Briefings

Short briefings based on items of new & changing knowledge.

Access the Minor Briefings Here

RCGP Research Paper of the Year Briefings

Access the RPY Briefings here

Essential Knowledge Challenge 18

Two separate 25 item Essential Knowledge Challenges. The questions in both Challenges are sourced from the major updates and briefings found within the current Essential Knowledge Update 18. Each Challenge contains a different set of 25 questions, balanced across the available modules:

- Essential Knowledge Challenge 18 (1): With Instant Answers
- Essential Knowledge Challenge 18 (2): With Certificate (answers available April 2017)

Please note that Challenge 18 will be launched in January 2017 and the answers to Essential Knowledge Challenge 18(2) questions will be published in April 2017.

Learning Tools

These tools have been designed to aid you in assessing your practice & applying your new knowledge. The forms for audit, significant event audit, multi-source feedback (MSF), patient satisfaction questionnaire (PSQ) and Patient Complaints / Cause for Concern / Positive Feedback can aid you in meeting your revalidation requirements.

Access the Learning Tools Here

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EKU Programme

Essential Knowledge Update 2017.1: January 2017

Your progress

The RCGP Essential Knowledge Updates (EKU) are a fantastic elearning CPD resource, written for GPs by GPs, updating you on new and changing evidence to inform your practice. This is the seventeenth EKU release which we hope continues to offer interesting and diverse evidence based elearning content.

EKU 2017.1 consists of 5 major modules which were selected following a comprehensive search and assessment of new guidelines and evidence, and were felt to have the most relevance and potential to impact on the day to day practice of busy GPs.

Topics within this release are managing common infections, non-alcoholic fatty liver disease, sepsis, supporting people with dementia and their carers and treatment of Alzheimer's disease and opioid use disorder.

We hope you find all of the diverse topics included within this Update interesting and relevant to your practice, and continue to use EKU as an essential part of your CPD.

Acknowledgements

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Essential Knowledge Challenge (EKC)

Dr Chris Elfes, FRCGP

Royal College of General Practitioners

Question 1: Investigation of cough

A 68-year-old ex-smoker has had a dry cough for eight weeks. Examination is normal. He has COPD and hypertension. His regular medications are: aspirin 75 mg daily, atorvastatin 80 mg daily, amlodipine 5 mg daily and tiotropium inhaler once daily.

Which of the following is the SINGLE MOST appropriate INITIAL investigation? Select ONE option only.

A. Chest x-ray
B. ECG
C. Echocardiogram
D. Natriuretic peptide
E. Spirometry

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Question 2: Suspected cancer referrals

According to current NICE guidance on suspected cancer, **HOW MANY** adult patients referred in accordance with the specified criteria are predicted to have cancer? Select **ONE** option only.

A. 1 in 100
B. 2 in 100
C. 3 in 100
D. 5 in 100
E. 10 in 100

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Question 3: Confidential Enquiry into Maternal Deaths

A 32-year-old pregnant woman has had a flu-like illness for 24 hours. She has a fever, cough and generalised aches. Her temperature is 38.1 °C. There is an influenza pandemic in the locality.

According to the Confidential Enquiry into Maternal Deaths, which of the following is the MOST appropriate treatment? Select ONE option only.

A. Aciclovir
B. Amantadine
C. Amoxicillin
D. Ibuprofen
E. Oseltamivir

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Question 4: Bronchiolitis

A nine-month-old child has had a runny nose and now developed a cough. His temperature is 38 °C, respiratory rate 50 breaths/minute and he has bilateral wheeze. His oxygen saturation is 95%. You agree with his parents to manage him at home.

According to current NICE guidance, which is the SINGLE MOST important clinical feature to prompt IMMEDIATE medical review? Select ONE option only.

A. Declining solid food
B. Marked chest recession
C. No wet nappy for six hours
D. Sleepy child, waking with stimulation
E. Temperature 39 °C

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Question 5: Drug-resistant hypertension

According to a recent study published in The Lancet, which is the **SINGLE MOST** effective fourth-line, add-on medication for the treatment of drug-resistant hypertension? Select **ONE** option only.

A. Bisoprolol
B. Doxazosin m/r
C. Hydralazine
D. Methyldopa
E. Spironolactone

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Suspected Cancer – Recognition and Referral

Dr Thomas Round

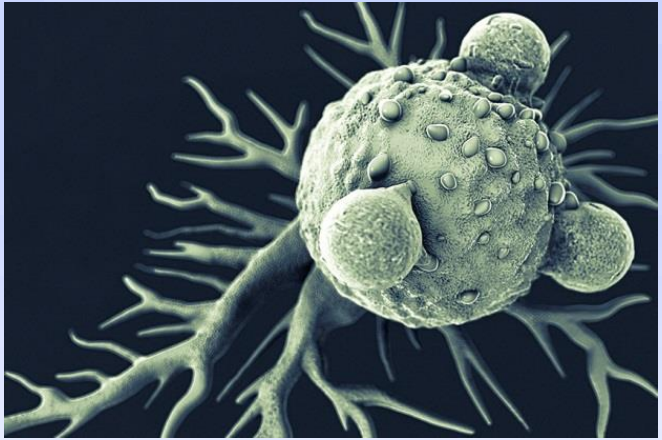
NICE (12) 2016

EKU17 written by Dr Matthew Castleden

Royal College of General Practitioners

Overview

- Summarises recommendations in the 2015 NICE guideline (NG12) on the recognition of cancer in primary care
- Increase in lifetime cancer risk from approximately 1 in 3 to 1 in 2
- Identification of people with possible cancer usually happens in primary care
- Variation in referral and testing for possible cancer (independent of population characteristics) has prompted move to improve cancer diagnosis in primary care
- New primary care based evidence helped prompt review and need for updated guidance



Source Documents:

Suspected Cancer: Recognition and Referral. National Institute for Health & Care Excellence (NICE) Guideline 12, 2015.

www.nice.org.uk/guidance/ng12

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Basic Principles

- Risk threshold in the 2005 guideline varied by cancer type but did not usually correspond to a positive predictive value (PPV) of less than 5%
- 2015 guideline uses a standardised PPV of 3% for all cancers (except children and young people, where PPVs are below 3%)
- This means that 3 out of 100 adult patients referred under the 2015 guideline could be expected to have cancer
- Three sections: the first organises recommendations according to cancer site; second covers patient support, safety netting and the diagnostic process; third presents the recommendations according to symptoms and investigation findings

Recommendation organised by site of cancer

- There are **89 recommendations** in this section of the guideline, many updated since 2005 - impossible to adequately cover in one EKU module
- Some of the more **significant changes** are summarised in the following slides for **lung, upper and lower GI cancers**
- Language of the guideline generally less proscriptive, with more scope for clinicians to use own judgement
- Increased use of direct access investigations previously only available in secondary care
- Consequent NHS organisational and resource implications

Lung

- Refer patients aged over 40 years with haemoptysis using a suspected cancer (2 week) referral pathway [regardless of any chest X-ray findings]
- Urgent (within 2 weeks) chest X-ray should offered to people over 40 with two or more of the following symptoms (or one or more if smoker or ex-smoker): cough, fatigue, SOB, chest pain and weight loss, and appetite loss
- If thrombocytosis is present in people aged over 40 an urgent CXR should be considered

Upper GI

- Offer urgent direct access gastrointestinal endoscopy (within 2 weeks) to assess for oesophageal or stomach cancer in people with dysphagia, or aged 55 and over with weight loss and any of the following: upper abdominal pain, reflux, or dyspepsia
- Consider urgent direct access CT scan (within 2 weeks) to assess for pancreatic cancer in people aged over 60 with weight loss and alarm symptoms (including diarrhoea, back pain, abdominal pain) or with new onset diabetes
- Consider urgent direct access ultrasound for liver or gallbladder mass

Lower GI

2 week referral for colorectal cancer for patients:

- Aged 40+ with unexplained weight loss and abdominal pain
- Aged 50+ with unexplained rectal bleeding [no longer a requirement for 6 weeks of bleeding]
- Aged 60+ with iron deficiency anaemia or changes in bowel habit [haemoglobin threshold no longer specified]

2 week referral recommended for a positive faecal occult blood (FOB) test.

FOB testing recommended in the following situations:

- People aged 50+ with unexplained abdominal pain or weight loss
- Under 60 with changes in bowel habit or iron deficiency anaemia
- Aged 60+ with anaemia even in the absence of iron deficiency

Non-site-specific symptoms

- NICE recognise that some symptoms may be suggestive of one of several different cancers; although ‘the risk of each individual cancer may be low… the total risk of cancer of any type may be higher’

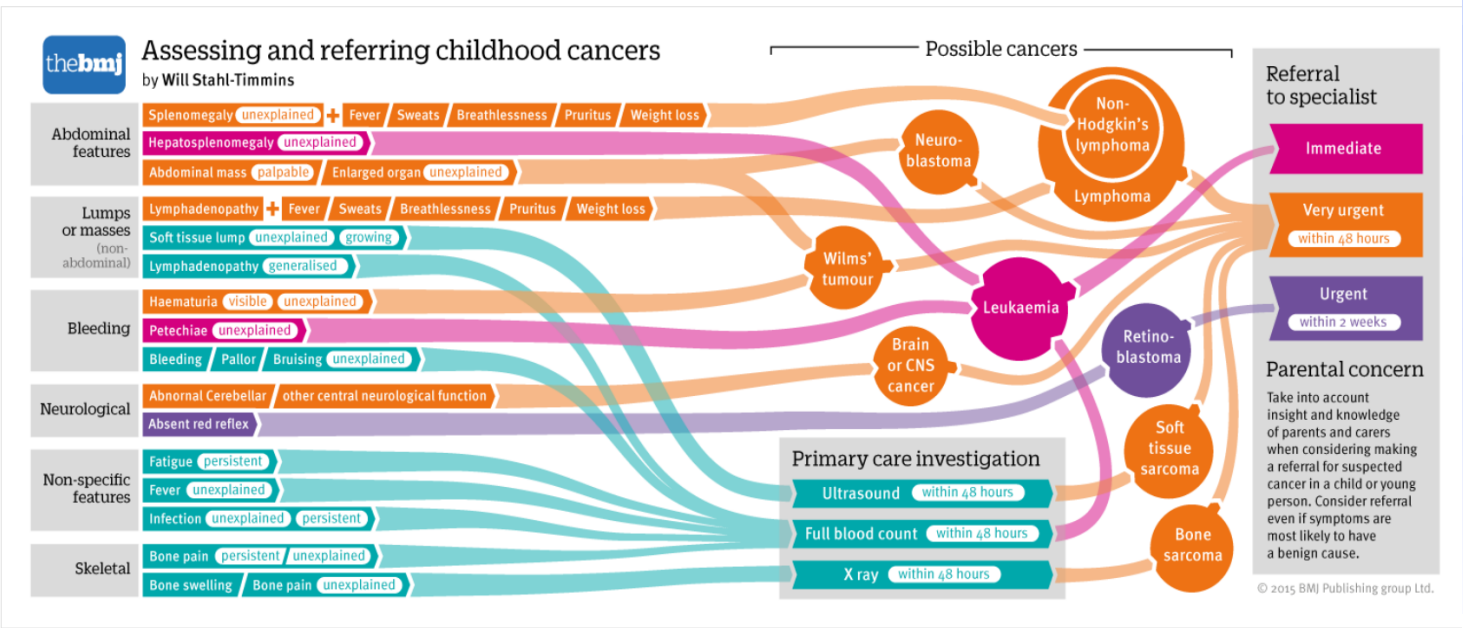
- For children and young people, parents’ insight and knowledge should be taken into account: can consider referral if persistent parental/carer concern even if symptoms most likely benign

- For adults, unexplained appetite loss, weight loss, and deep vein thrombosis should prompt further assessment for additional symptoms, signs and findings together with urgent investigation or referral for suspected cancer

Recommendations by symptom & findings of primary care investigations

- NICE also organises guidance according to symptom presentation and initial investigation findings, rather than by cancer site
- A departure for NICE: innovative and potentially clinically useful (as it arranges guidance in the same way patients actually present)
- But the duplication of recommendations makes for a larger and more complex guideline
- Symptom groups listed alphabetically in guideline, but helpful visual representations of symptom-based NICE guidance have been published eg BMJ flow charts, CRUK infographics

Recommendations by symptom & findings of primary care investigations



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Recommendations by symptom & findings of primary care investigations

Example: Haematuria (NICE guideline format)

Symptom and specific features	Possible cancer	Recommendation [relevant cancer site section]
Haematuria (visible and unexplained) either without UTI or persisting/recurring after successful treatment for UTI, 45 and over	Bladder or renal	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.4] [1.6.6]
Haematuria (non-visible and unexplained) with dysuria or raised WCC on a blood test, 60 and over	Bladder	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.4]
Haematuria (visible) with low Hb levels or thrombocytosis or high blood glucose levels or unexplained vaginal discharge in women 55 and over	Endometrial	Consider a direct access ultrasound scan [1.5.12]
Haematuria (visible) in men	Prostate	Consider a prostate-specific antigen (PSA) test and digital rectal examination [1.6.2]

Practical Tips

Download and/or print the summary tables or infographics of guidelines organised by symptom presentation (see resources) for use during or immediately after consultations.

Remember unexplained thrombocytosis in an FBC result could signify an increased risk of cancer (e.g. suspected endometrial or lung cancer).

Appetite loss, weight loss, or unexplained DVT should prompt further investigation for suspected cancer.

Check that FOB testing is available in your area for non-screening purposes.

Check referral processes and availability of direct access investigations as recommended in the new guideline

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Essential Knowledge Update 18
October 2016

Briefings/Minors/Journal Watch/Hot Topics

Dr Thomas Round

RCGP Royal College of General Practitioners

Clinical workload in UK primary care: a retrospective analysis of 100 million consultations in England, 2007–14. The Lancet, April 2016

- Analysis of GP and nurse consultations of patients at 398 English general practices between April 2007 – March 2014, including 101,818,352 consultations
- Annual consultation rate per person increased by 10.5%, from 4.67 in 2007–08, to 5.16 in 2013–14
- 12.36% increase in standardised GP consultation rates compared with 0.9% for practice nurses
- GP telephone consultation rates doubled, compared with a 5.20% rise in surgery consultations, which accounted for 90% of all consultations
- The mean duration of GP surgery consultations increased by 6.7%, from 8.65 min to 9.22 min
- Overall workload increased by 16%

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General practice funding underpins the persistence of the inverse care law: cross-sectional study in Scotland. BJGP, December 2015

- A cross-sectional study using routine data from 956 general practices in Scotland
- Levels of multi-morbidity rose with practice deprivation. Practices in the most deprived decile had
  - 38% more patients with multi-morbidity compared with the least deprived (222.8 per 1000 patients versus 161.1; P<0.001)
  - >120% more patients with combined mental and physical multi-morbidity (113.0 per 1000 patients versus 51.5; P<0.001)
  - 20% more consultations per annum compared with the least deprived (4616 versus 3846, P<0.001)
- There was no association between total practice funding and deprivation
- There was no association between consultation rates and levels of funding

Vaccines for preventing herpes zoster in older adults. Cochrane review, March 2016

- Review included 13 studies involving 69,916 participants
- Incidence of herpes zoster, at up to three years of follow-up, was lower in participants who received the vaccine than in those who received a placebo: risk ratio (RR) 0.49; 95% confidence interval (CI) 0.43 to 0.56, risk difference (RD) 2%, number needed to treat to benefit (NNTB) 50
- The authors conclude that herpes zoster vaccine is effective in preventing herpes zoster disease and this protection can last three years
- In general, zoster vaccine is well tolerated; it produces few systemic adverse events and injection site adverse events of mild to moderate intensity

Topical Nonsteroidal Anti-inflammatory Drugs for Acute Musculoskeletal Pain. JAMA, February 2016

- The review included 61 studies. Compared topical NSAIDs with a similar topical placebo; 5311 participants were treated with a topical NSAID, 3470 with placebo, and 220 with an oral NSAID
- Formulations of topical NSAIDs were associated with higher rates of clinical success (more participants with at least 50% pain relief) than matching topical placebo
- Topical diclofenac NNT 3.7; topical ketoprofen NNT 3.9; topical ibuprofen NNT 3.9. All other drugs in any formulation had NNT values above 4
- Local skin reactions associated with topical NSAIDs (4.3%) did not differ from placebo (4.6%) and were generally mild and transient
- Systemic adverse events occurred in 3% of participants for both NSAIDs and placebo

Effect of Dilute Apple Juice and Preferred Fluids vs Electrolyte Maintenance Solution on Treatment Failure Among Children With Mild Gastroenteritis: A Randomized Clinical Trial. JAMA

- Randomised, single-blind trial conducted 2010 to 2015 in a paediatric emergency department in Toronto, Canada
- Study participants children aged 6 - 60 months with gastroenteritis and minimal dehydration
- 647 children (mean age, 28.3 months; boys 51%; 441 (68.2%) without evidence of dehydration) randomly assigned to receive half-strength apple juice/preferred fluids (n=323) or apple-flavoured electrolyte maintenance solution (n=324)
- Children given dilute apple juice experienced treatment failure less often than those given electrolyte maintenance solution (16.7% vs 25.0%)
- Fewer children administered apple juice/preferred fluids received intravenous rehydration (2.5% vs 9.0%)
- Hospitalisation rates and diarrhoea and vomiting frequency were not significantly different between groups

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Type 2 Diabetes – Management in adults

Dr Chris Elfes FRCGP

NICE (NG28) July 2016

EKU18 written by Dr Maitram Tran

RC GP Royal College of General Practitioners

What's 'new'?

- Prevalence 6-6.7%
- Do *not* recommend dietary products specifically marketed for DM
- Do *not* recommend antiplatelet as primary prevention
- Seek advice if unexplained differences HbA_{1c} vs glucose

What else is different?

- Individualised care
- Informed decision making
- Working in partnership with a person with DM
- Acknowledgement that studies are ‘younger’ adults age 45-68

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Blood pressure targets

- < 140/80
- < 130/80 if renal/eye/CVS co-morbidity

- Monitor BP 1- 2 monthly until target is achieved
- Monitor BP 4-6 monthly once target is achieved

Antihypertensive medication

Individualise care

- 1st -line ▹ ACE *except*:
  - If Afro Caribbean ▹ DUAL therapy ACE + CCB or Thiazide
  - If pregnant/planning pregnancy ▹ ? CCB*
  - If intolerant of ACE ▹ ARB

- 2nd -line ▹ ACE + CCB or Thiazide
- 3rd -line ▹ ACE + CCB + Thiazide
- 4th-line ▹ ACE + CCB + Thiazide + α-blocker
- *or* ACE + CCB + Thiazide + b-blocker
- *or* ACE + CCB + Thiazide + spironolactone

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Self-monitoring of blood glucose (SMBG)

Regular SMBG only if:

- Insulin
- Evidence of hypo's
- Antidiabetic agents increasing hypo risk driving/occupation
- Pregnant
- Planning to be pregnant

Short-term SMBG* if:

- Starting oral steroids
- Starting IV steroids
- To confirm/exclude diagnosis if unclear? Hypo's

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HbA_{1c} Targets (non-pregnant)

Monitor 3-6 monthly from diagnosis Monitor 6-monthly once stable	HbA_{1c} target	Comment
Diet controlled or Monotherapy with Metformin, Pioglitazone or Gliptin	48 mmol/mol (6.5%)	Unless drug-associated hypo's Reinforce lifestyle
If monotherapy control deteriorates to 58+ mmol/mol or If monotherapy with sulfonylurea If drug associated hypoglycaemia with 48 mmol/mol	53 mmol/mol (7%)	Reinforce lifestyle Check adherence Add second drug
If elderly, frail, reduced life expectancy, falls associated with hypo, poor hypo awareness or If occupation involves driving/machinery etc	Relax target on a case-by-case basis	*Upto 64 mmol/mol (8%)* *Upto 68 mmol/mol (8.4%)* *Avoid symptomatic hyperglycaemia*
If unexpected low HbA1c		Consider if unintentional weight loss Check for anaemia Check for reduced renal function

Individualise care

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Antidiabetic agents 1

Individualise care

If symptomatic from hyperglycaemia then consider admission, insulin or sulfonylurea and early review

1st line ▹ Metformin

- Metformin m/r
- Gliptin or Pioglitazone* or Sulfonylurea

1st Intensification

- DUAL therapy ▹ Met + Gliptin *or* Pio *or* Sulfonylurea
- DUAL therapy ▹ Gliptin + Pio, *or* Gliptin + Sulfonylurea, *or* Pio + Sulfonylurea

- *Consider DUAL therapy* ▹ Met + Glinide
- *Consider DUAL therapy with SGLT-2*

Antidiabetic agents 2

Individualise care

2nd Intensification

- TRIPLE therapy ▹ Met + Gliptin + Sulfonylurea
  or
- TRIPLE therapy ▹ Met + Pio + Sulfonylurea
  or
- TRIPLE therapy ▹ Met + (Pio or Sulfonylurea) + SGLT2
  or
- Insulin +/- Metformin

Consider

- TRIPLE therapy* ▹ Met + Sulfonlyurea + GLP1 injections
- Specialist only ? Insulin + GLP1 injections

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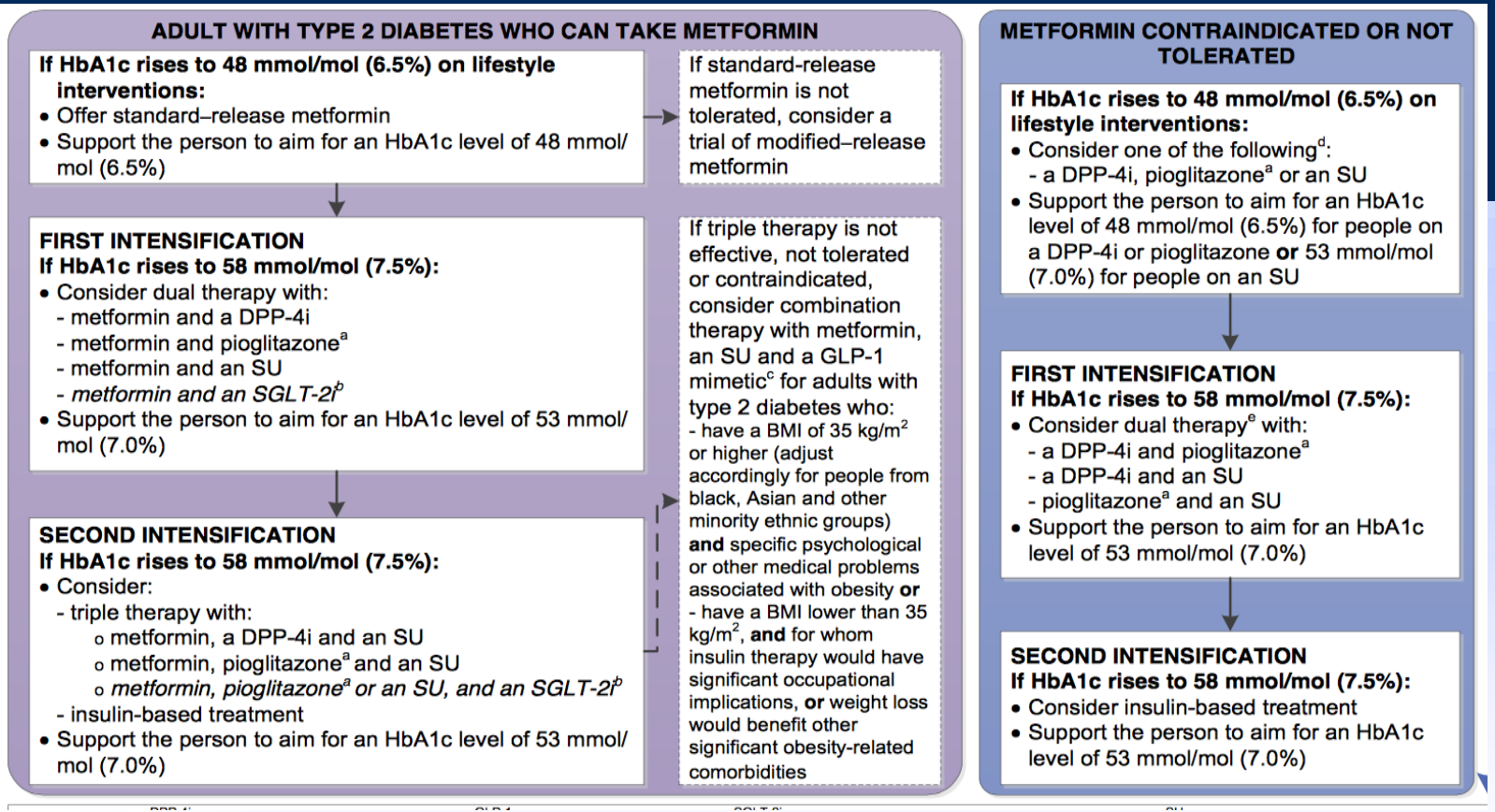

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Structured insulin advice

- Injection technique e.g. rotating sites,
- Continuing telephone support
- Self-monitoring
- Dose titration to target levels
- Dietary understanding
- DVLA at a glance guide* *(+ TREND-UK)*
- Management of hypoglycemia
- Management of acute changes in plasma glucose control
- Support from an appropriately trained and experienced HCP

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Gastroparesis

- Symptoms
  - Unexplained vomiting
  - Unexplained bloating
  - Very variable glucose readings

- No strong evidence for drug treatment
  - 1. Metoclopramide alternating with Erythromycin
  - 2. *Exceptional circumstances* - Domperidone

- **Specialist opinion**

Take home points

Personalised care tailored to the individual:

- Individual BP targets
- Individual HbA_{1c} targets
- Relax HbA_{1c} targets in the very frail/elderly
- Less Aspirin

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Essential Knowledge Update 17
April 2016

Briefings/Minors/Journal Watch/Hot Topics

Dr Chris Elfes FRCGP

RCGP Royal College of General Practitioners

Oral anticoagulants for stroke prevention in AF

- Warfarin reduces the risk of stroke in non-valvular AF > 60%.
- But only used by 50% of those who should be on treatment.

- NOACs have been shown to be at least as good as warfarin for stroke prevention in AF
- NOACs have a fast onset and offset of action, 'better' safety profiles but they currently lack easily available specific antidotes.

- NOACs have **significantly lower** all-cause mortality compared with warfarin in large clinical trials.

Verheugt FWA, Granger CB.
Oral Anticoagulants for Stroke Prevention in Atrial Fibrillation:
Current Status, Special Situations, and Unmet Needs. The Lancet, 386, 9990, 303-310.

Anticoagulation self-monitoring

- Patients vary considerably in their ability to self-monitor and self-manage
- Only 38% (range 12–59%) identified as eligible for self-monitoring actually do so

This was a prospective cohort study (N = 296) published in the BJGP:

- Median age 61
- 55% male
- 82.7% were professionals or held a university qualification

At 12 months :

- 90% were still self-monitoring.
- Mean TTR 75%
- Six serious and two minor adverse events were reported by GPs
- Only 46% received any face-to-face training at the outset
- Increased age (P = 0.027), general wellbeing (P = 0.020), and lower target INR (P = 0.032) were all associated with high (>80% TTR) levels of control

Hidradenitis suppurativa Cochrane review, 2015

- Estimated to affect up to 1% of the adult population
- There was no RCT evidence to support several common treatments
- Included trials were small and average duration was four months
- **Weak evidence of benefit** for clindamycin lotion and oral tetracyclines
- Pharmaceutical industry-sponsored trials of anti-TNF therapies:
  - Etanercept – no benefit
  - Infliximab – small trial, improved quality of life at 8 weeks
  - Adalimumab – N = 154, high-dose 'probably' improved quality of life at 16 weeks
- No trials investigating when or what surgical procedure to consider
- Quality too low to recommend laser-type treatments

Leukotriene receptor antagonists (LTRAs) as maintenance and intermittent therapy for Episodic Viral Wheeze (EVW) in children

- ~30% of children experience a wheezing episode before age of five
- Many pre-school children only wheeze with URTIs (EVW)
- EVW appears to be a separate entity from atopic asthma
- This 2015 Cochrane review compared maintenance or intermittent LTRA with placebo in pre-school children with EVW
- Five eligible studies (N = 3741). All used oral montelukast with good methodology, but different outcome measures

No evidence of benefit of maintenance or intermittent LTRA treatment over placebo for preventing acute episodes of wheezing requiring use of rescue oral steroids

Maternal health in pregnancy: messages from the 2014 UK Confidential Enquiry into Maternal Death

Maternal mortality has fallen to 10/100,000.

- The major cause of 'direct' deaths was thromboembolism.
- ~66% of deaths due to 'indirect causes' - cardiac, infections, medical problems and suicide.
- Maternal mortality is higher among older women, women living in the most deprived areas, Black African and Asian women (especially if born outside the UK)
- Only 29% of those who died had had the recommended level of antenatal care.

Key messages for GPs include:

- All pregnant women should be strongly encouraged to have flu immunisation
- If a pregnant woman has flu/close contact with a FLI, treat with neuraminidase inhibitors (NAIs) a.s.a.p
- Potentially septic women should have obs recorded - HR, Temp, BP, and RR - and emergency admission
- If the condition of a pregnant woman with epilepsy changes she needs urgent review with a neurologist
- Proteinuria in early pregnancy should be quantified and, if found to be significant, investigated
- All women with pre-existing medical conditions need pre-pregnancy counselling

Intermittent oral iron supplementation during pregnancy

- This Cochrane review assessed the benefits and harms of intermittent (i.e. two or three times a week on non-consecutive days) oral supplementation with iron or iron and folic acid or iron and vitamins and minerals for pregnant women
- 21 trials involving 5,490 women
- There was no clear evidence of worse outcomes for infant birthweight, premature birth, perinatal death, anaemia* and iron deficiency in women at the end of pregnancy
- However, women receiving intermittent rather than daily iron supplements were:
  - Less likely to report side effects such as constipation and nausea
  - Less likely to develop high haemoglobin concentrations
  - There were no other clear benefits for other outcomes examined

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Management of Chronic Heart failure

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SIGN (147) March 2016

EKU18 written by Dr Michael Thurgood

Royal College of General Practitioners

Management of chronic heart failure

- Really common!
- Affecting 500,000 people in UK
- 1.22% of men and 0.76% of women in UK
- Becoming more prevalent as ageing population
- Still terrible prognosis

Management of chronic heart failure

Two types:

- Heart failure with reduced ejection fraction (HF-REF)
- Heart failure with preserved ejection fraction (HF-PEF)

Discrimination via Echocardiogram

Heart failure with preserved ejection fraction (HF-PEF)

- 35-50% of patients with HF
- Decrease in LV compliance
- Increase of pressure in LV

Causes

- Myocardial Ischaemia
- Myocardial Hypertrophy
- Myocardial Constriction
- Pericardial Constriction
- Tachyarrythmias

HF – REF: Most Common Causes

- Coronary artery disease
- Diabetes mellitus
- Hypertension
- Valvular heart disease (stenosis or regurgitant lesions)
- Arrhythmia (supraventricular or ventricular)
- Infections and inflammation (myocarditis)
- Peripartum cardiomyopathy
- Congenital heart disease
- Drugs (either recreational, such as alcohol and cocaine, or therapeutic drugs with cardiac side effects)
- Idiopathic cardiomyopathy

HF – REF: Symptoms and Signs

- Dyspnoea, Orthopnoea, Nocturnal Dyspnoea
- Reduced Exercise Tolerance
- Elevated Jugular Pressure
- Third Heart Sound
- Cardiac Murmur
- Laterally Displaced Apex Beat

HF – REF: Workup

- BNP
  - If > 400, 2ww referral to cardiology
  - If 100-400, echo within 6 weeks
- ECG
- Echo: <40% ejection fraction diagnostic
- CXR
- FBC, U+E's, Urine dipstick, HbA1c, TFTs

HF – REF: Lifestyle Changes

- Low Salt Diet
- Smoking Cessation
- Weight Monitoring
- Supervised Exercise
- Influenza and Pneumococcal immunisation

HF – REF: Treatment

- ACE-I / ARB
- Beta-blocker (even in COPD!)
- Loop Diuretic if still symptomatic
- MRA if still symptomatic
- If Spironolactone not tolerated, try Eplenerone
- If MRA not tolerated, trial of ARB+ACE-I
- ARB/Neprilysin Inhibitor
- Ivabradine
- Digoxin

HF – REF: Palliative care

- Active heart failure management and symptom control
- Rationalisation of drug therapy
- Anticipatory care planning
- Coordination of care involving a multidisciplinary team with good communication between specialities
- End of life care

HF – REF: Service Needs

- Audit renal function monitoring
  - Heart failure patients
  - Patients on ACE-I/ARB/Spironolactone/Eplenerone
- Push CCG re access to BNP/Echo

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Bronchiolitis in Children: Diagnosis and Management

Dr Thomas Round

NICE (9) 2015

EKU17 written by Dr Amer Salim

Royal College of General Practitioners

Overview

- Evidence based approach to the diagnosis and management of bronchiolitis in children
- Summary of NICE guideline 2015
- Also information on how to recognise children who may require hospital management

Source Documents:
Bronchiolitis in Children: National Institute of Health and Care Excellence (NICE) Guideline 9, 2015
www.nice.org.uk/guidance/ng9

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Introduction

- A common acute viral illness that affects the lower respiratory tract
- Generally occurs in children under one year
- Approximately, one in three children are affected in the first year of life
- Seasonal infection that peaks in winter months

- Most common causative agent is respiratory syncytial virus (RSV)
- Associated with an increased risk of asthma
- Risk factors for bronchiolitis are:
  - Congenital heart disease
  - Neuromuscular disorders
  - Immunodeficiency
  - Chronic lung disease

Basic Principles

- Usually a mild, self-limiting acute viral illness that requires no specific treatment
- A clinical diagnosis, careful clinical assessment to differentiate from viral-induced wheeze and pneumonia
- Deteriorating disease requires consideration for hospital referral
- Alarm symptoms or signs warrant emergency hospital referral
- Parents need safety information on how to recognise ‘red flag’ symptoms

Diagnosis

Bronchiolitis affects children under two years of age and most commonly in the first year of life, peaking between three and six months.

Diagnose bronchiolitis if a child has coryzal prodromal symptoms lasting one to three days, followed by:

- Persistent cough

AND

- Either tachypnoea or chest recession (or both)

AND

- Either wheeze or crackles on chest auscultation

Differential diagnosis

Clinical features of bronchiolitis overlap with pneumonia and viral-induced wheeze.

Pneumonia

- Consider pneumonia if the child has:
- High fever (over 39°C) and/or
- Persistent focal crackles

Viral-induced wheeze

- Consider in older infants and young children if they have any of the following:
- Persistent wheeze without crackles or
- Recurrent episodic wheeze or
- A personal or family history of atopy

Alarm symptoms

Following warrant immediate referral to hospital care:

- Apnoea: observed or reported
- Severe respiratory distress: grunting, marked chest recession or RR over 70 breaths/minute
- Central cyanosis
- Persistent oxygen saturation of less than 92% on air
- Seriously unwell looking child

Consider referral to hospital in the following situations:

- RR over 60 breaths/minute
- Difficulty with breastfeeding or inadequate oral fluid intake (50-75% of usual volume)
- Clinical dehydration

Management in primary care

Bronchiolitis is usually a mild, self-limiting illness that can be managed at home without the need for any specific treatment.

The following treatments are **NOT** recommended:

- Antibiotics
- Bronchodilators
- Oral or inhaled corticosteroids
- Montelukast
- Steam inhalation

Safety netting

The parents and carers of children with bronchiolitis who are managed at home need to be able to recognise ‘red flag’ symptoms and understand how to access healthcare urgently.

Written or online safety information should be provided.

- **Work of breathing**: grunting, nasal flaring, marked chest recession
- **Fluid intake**: 50-75% of normal or no wet nappy for 12 hours
- **Exhaustion:** not responding normally to social cues, wakes only with prolonged stimulation
- **Apnoea**

Management: Hospital Care

Aim of hospitalisation is to provide supportive care

- Nasal suction to facilitate oral feeds
- Hydration – nasogastric or intravenous
- Oxygen if saturation is persistently less than 92%
- Continuous positive airway pressure (CPAP) with impending respiratory failure
- Upper airway suction with respiratory distress or feeding difficulties because of upper airway secretions or with apnoea even if there are no obvious upper airway secretions

NICE recommends avoiding the following drugs:

- Antibiotics
- Hypertonic saline
- Adrenaline – nebulised
- Salbutamol
- Montelukast
- Ipratropium bromide
- Systemic or inhaled corticosteroids
- Combination of systemic corticosteroids and nebulised adrenaline

Practical Tips

Consider bronchiolitis in a child who has coryzal symptoms associated cough and tachypnoea.

Explore features of the history and examination that help distinguish bronchiolitis from other causes of lower respiratory tract infections and wheeze.

Emphasise the need to avoid unnecessary treatment for mild cases of the disease.

Provide information for parents and carers on how to recognise deteriorating disease and ‘red flag’ symptoms.

Question 1
Investigation of cough

A 68-year-old ex-smoker has had a dry cough for eight weeks. Examination is normal. He has COPD and hypertension. His regular medications are: aspirin 75 mg daily, atorvastatin 80 mg daily, amlodipine 5 mg daily and tiotropium inhaler once daily.

Which of the following is the SINGLE MOST appropriate INITIAL investigation? Select ONE option only.

A Chest x-ray ☑
B ECG
C Echocardiogram
D Natriuretic peptide
E Spirometry

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Question 2
Suspected cancer referrals

According to current NICE guidance on suspected cancer, **HOW MANY** adult patients referred in accordance with the specified criteria are predicted to have cancer? Select **ONE** option only.

A 1 in 100
B 2 in 100
C 3 in 100 ☑
D 5 in 100
E 10 in 100

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Question 3
Confidential Enquiry into Maternal Deaths

A 32-year-old pregnant woman has had a flu-like illness for 24 hours. She has a fever, cough and generalised aches. Her temperature is 38.1 °C. There is an influenza pandemic in the locality.

According to the Confidential Enquiry into Maternal Deaths, which of the following is the MOST appropriate treatment? Select ONE option only.

A Aciclovir
B Amantadine
C Amoxicillin
D Ibuprofen
E Oseltamivir ☑

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Question 4
Bronchiolitis

A nine-month-old child has had a runny nose and now developed a cough. His temperature is 38 °C, respiratory rate 50 breaths/minute and he has bilateral wheeze. His oxygen saturation is 95%. You agree with his parents to manage him at home.

According to current NICE guidance, which is the SINGLE MOST important clinical feature to prompt immediate medical review? Select ONE option only.

A Declining solid food
B Marked chest recession ☑
C No wet nappy for six hours
D Sleepy child, waking with stimulation
E Temperature 39 °C

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Question 5
Drug-resistant hypertension

According to a recent study published in The Lancet, which of the following is the **SINGLE MOST** effective fourth-line, 'add-on' medication for the treatment of drug-resistant hypertension? Select **ONE** option only.

A Bisoprolol
B Doxazosin m/r
C Hydralazine
D Methyldopa
E Spironolactone ☑

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Take home points and permission to give feedback!

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