



RightPath Model of Care Paediatric Musculoskeletal Triage in the Community

Professor Helen Foster, Professor of Paediatric Rheumatology
Newcastle University Medicine Malaysia and Newcastle University, UK

on behalf of the RightPath team



Acknowledgements RightPath stakeholders & partners

Newcastle (Great North Children's Hospital)

Paediatric Rheumatology

Prof Helen Foster (consultant)

Dr Sharmila Jandial (consultant)

Liz Clayton (physiotherapist)

Sr Ruth Wyllie (nurse specialist)

Paediatric Orthopaedics

Philip Henman (consultant)

William Bliss (consultant)

Sharon Solan (physiotherapist)

Julie Allen (physiotherapist)

Social Science Newcastle University

Dr Nicola Smith

Social Science Northumbria University

Prof Tim Rapley

South Tyneside NHS Foundation Trust

Judith McNaught (physiotherapy lead / manager)

Vicky Mercer (paediatric physiotherapist)

Peter Morgan (podiatrist)

Dr Gabriel Okugbeni (consultant paediatrician)

South Tyneside Clinical Commissioning Group

Dr Jon Tose (GP commissioner)

Dr Sharmila Parks (GP commissioner)

Pennine MSK Partnership, Oldham

Dr Alan Nye (GPwSI Rheumatology & Director)

Dr Jill Firth (Director for Service Improvement)

Kath Kinsey (research nurse)

Helen Light (research nurse)

Dr Neil Snowden (consultant rheumatologist)

RightPath triage teams & clinicians

Oldham CCG

Dennis Gizzi (Chief Executive Officer)

Manchester Children's Hospital (Paediatric Rheumatology)

Dr Alice Chieng (consultant paediatrician)

Dr Phil Riley (consultant paediatrician)

Verna Cuthbert (paediatric physiotherapist)

British Society Paediatric and Adolescent Rheumatology Parent Group

Allan Smith

Glenda Dalton

Funding

Oldham Clinical Commissioning Group

Unrestricted Educational research grant (Pfizer) to print triage guidance

Clinical Research Network Research support

North East and North Cumbria LCRN

Manchester LCRN

Dr Kate Cushing (salaried GP / research fellow)

Background: rationale

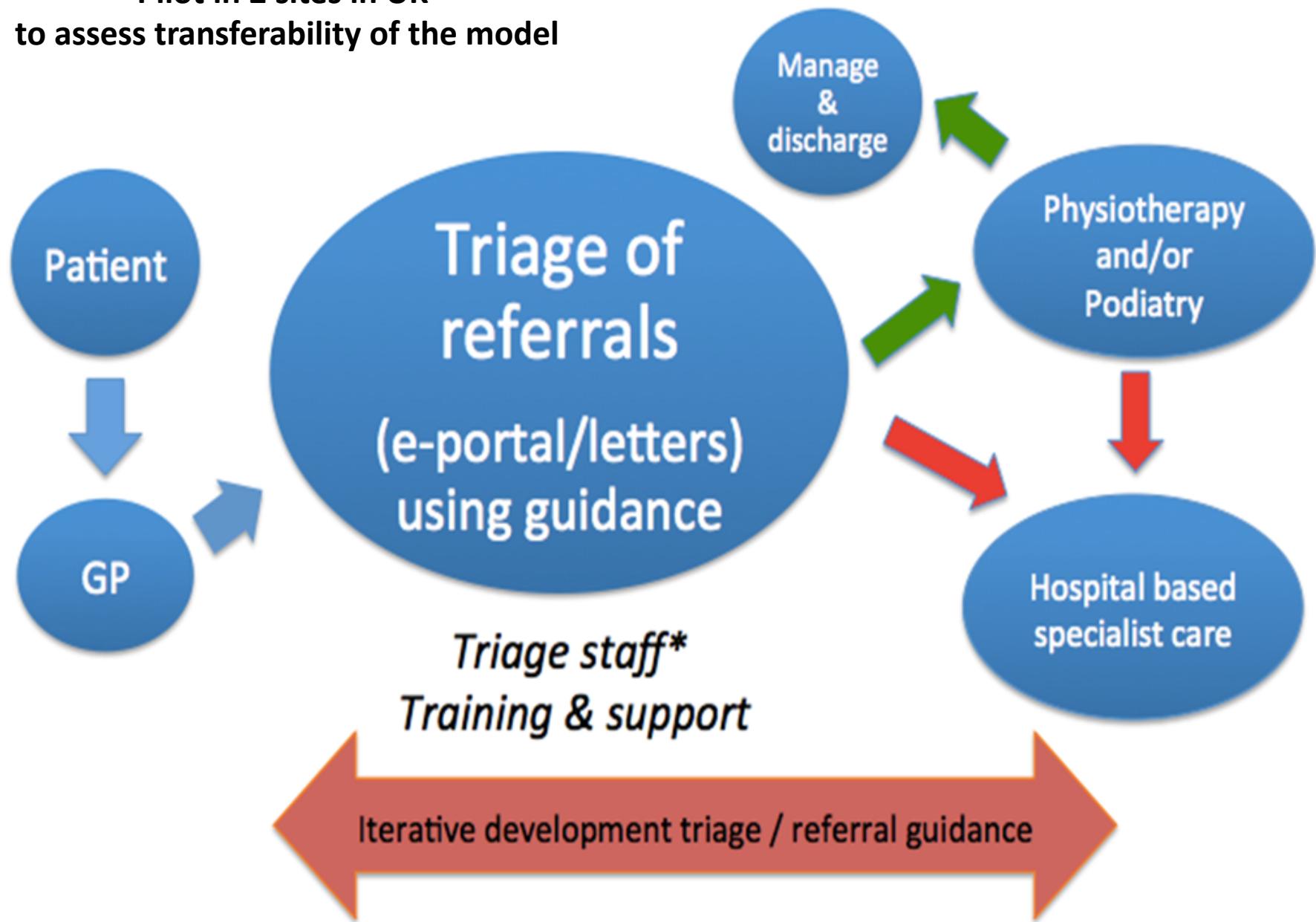
- Referral pathways for children & young people (CYP) with musculoskeletal (MSK) conditions are often complex & inefficient
- Many CYP are referred with minor / self-limiting MSK problems or parental concerns around normal variants
- Delays in diagnosis for childhood onset MSK pathologies are well recognised which may adversely affect outcomes
- Specialist paediatric services are under pressure with increasing numbers of referrals & long waiting times

MSK triage for CYP: the model

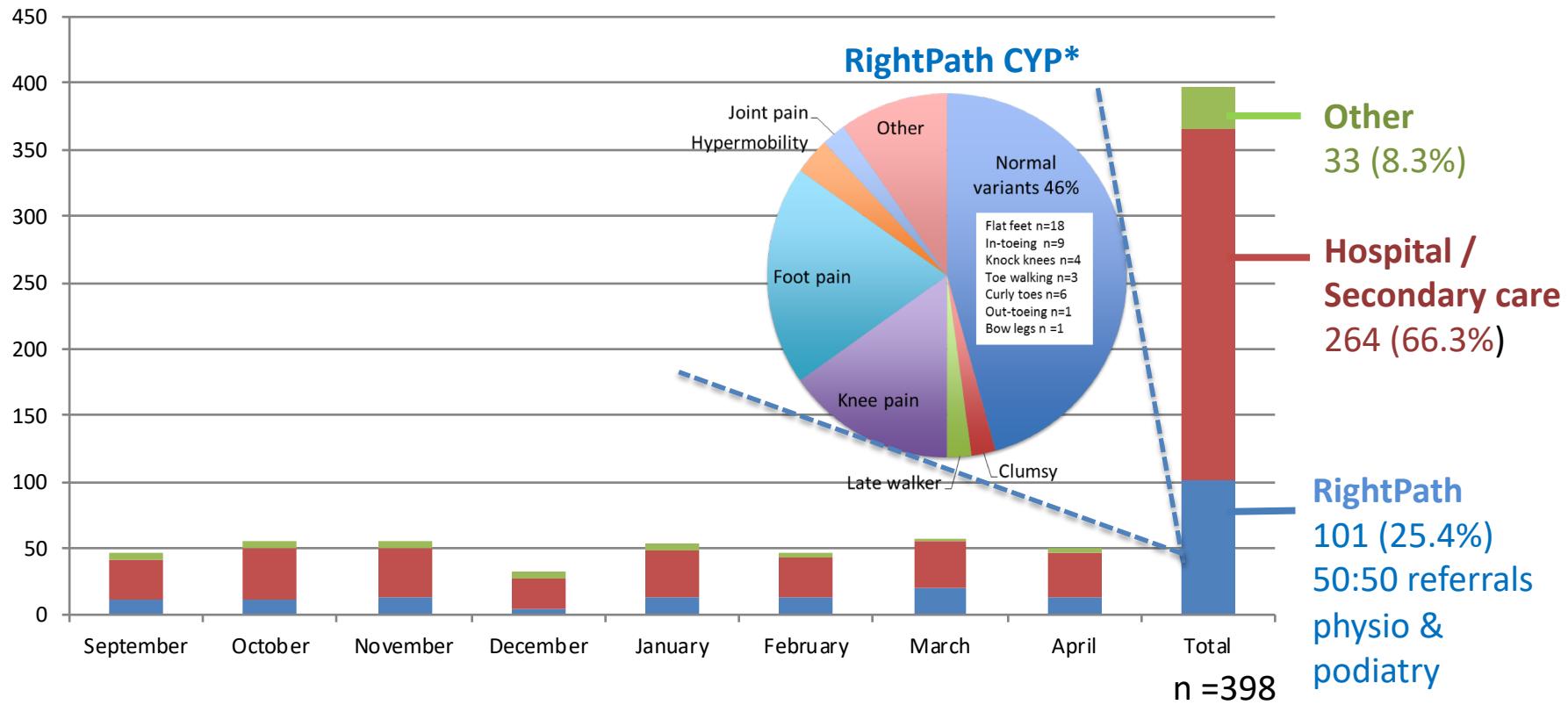
- **Iterative, real-time development of triage guidance & referral pathways based on validated adult model**
 - Training & testing of guidance by expert MSK nurses & allied health professionals (AHPs)
- **Referrals for CYP with 'normal variant' or non-serious MSK lower limb conditions were diverted & seen locally by AHPs with paediatric expertise**
 - those with suspected MSK pathology triaged to hospital care (secondary care)
- **Review of 1st 100 triage decisions to ensure patient safety**

pennine
partnership **msk** Ltd

Pilot in 2 sites in UK
to assess transferability of the model



Pilot in site 1: triage outcomes



*Data for consented 'RightPath' patients n=75

Pilot in 2 sites in UK
to assess transferability of the model

RightPath patient journey

- **Time to first assessment reduced from 14 weeks to:**
 - <2 weeks: 31%
 - <4 weeks: 95%
- **Discharged** = 41 (55%)
- **Ongoing treatment** = 26 (35%)
- **Onward referral** = 8 (11%)
 - 5 for physiotherapy
 - 3 of these to specialist care
- **Re-referred / presented within 6/12** = 3 (1 Osgood Schlatters; 1 foot pain 'DNA'; 1 outpatient attendance pending no 'red flag' conditions)



Service evaluation & development

Service evaluation across both sites

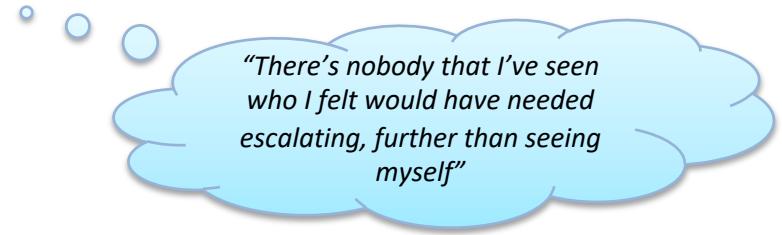
- **Triage process feedback**
 - Weekly logs & focus group or interview
- **Clinician feedback**
 - Weekly logs & focus group
- **Parent/patient service feedback**
 - Questionnaire based on ‘FFT’ & ‘Collaborate’ (a PROM for SDM), completed immediately after consultation

FFT ‘Family and Friends Test’

PROM Patient Reported Outcome Measure

SDM Shared Decision Making

Insights – clinicians and families

- Similar case mix to regular clinical practice – ‘no surprises’

“There’s nobody that I’ve seen who I felt would have needed escalating, further than seeing myself”
- Patients & families seemed ‘happy with consultation & treatment plan’ - ‘Nothing negative mentioned’
- RightPath ‘well liked’ by families
 - no complaints or requests for subsequent specialist referral
 - 99% ‘would’ recommend the service to family & friends and satisfaction scores are high

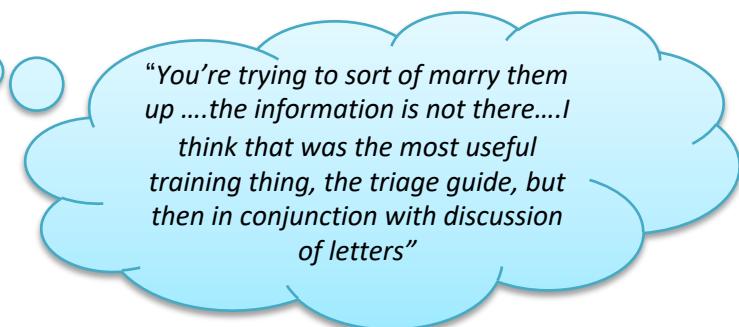
Focus groups with triagers

- **Adult MSK triage staff reported challenges**

- confidence
- emotional impact
- lack of paediatric knowledge



- **Difficult referral decisions were often due to case complexity or the quality of the referral letter**



Triage lessons learned

- **'Skill mix' of triager & support important**
 - Improved triage experience utilising AHPs with paediatric 'know how'
- **Variable quality of referral letters impacts on decision making**
 - Further work needed to explore ways to improve content of referral letters
- **Complex cases make triage decisions more challenging**
 - Complexity reflects clinical practice: triage for onward referral deemed therefore appropriate

Lessons learned: Training & development

- Expert advice needed initially to support use of triage guidance
- Sample letters very useful to practice using triage guidance with support of experts
- Preferred training format: ‘blended approach’ most suitable
 - Peer learning
 - MDT Triage quality meetings (cases & topics)
 - Paediatric Musculoskeletal Matters website as a useful ‘go-to’ resource



RightPath: Targeted Education

- **Triage and referral guidance**

- Reflecting musculoskeletal clinical presentations in primary care
 - When to be concerned and refer to hospital sub-specialist (rheumatology / orthopaedics or paediatrics) or refer to community paediatric physiotherapy or podiatry for management
- Developed iteratively with triage teams: ‘target audience’ paediatric physiotherapists
- Links to PMM (as the ‘go-to resource’)

- **Informing next steps**

- NICE have commissioned new Clinical Knowledge Summary (2019) based on RightPath triage guidance to facilitate reach to primary care across UK

The screenshot shows a mobile application interface for 'RightPath'. At the top, there's a blue header bar with the 'RightPath' logo. Below it, the text 'Condition > FLAT FEET' is displayed. The interface is divided into two main sections: 'GREEN FLAGS' on the left and 'RED FLAGS' on the right. The 'GREEN FLAGS' section is green and contains the text: 'Usually suitable for RightPath' and 'If the following apply, specialist opinion in the first instance is not needed'. The 'RED FLAGS' section is red and contains the text: 'If the following are mentioned in the referral letter or become apparent after assessment, consider specialist opinion in first instance'. At the bottom of the screen, there are navigation icons for back, forward, and search.



RightPath - conclusions

- **Access to care for CYP with MSK presentations is variable and likely results in ineffective and inefficient use of resources (workforce) and family time**
 - 'right place, right time, right service'
- **Clarity of care pathways & improved interface working can identify those that can be managed in the community**
 - Example of high quality inter professional learning using real cases, iterative & blended approaches (for primary care, specialist & allied health providers)
- **Exemplar of cross-boundary research**
 - Primary care, hospital & community providers in partnership with consumers & researchers: likely transferable to other areas of child health to inform 'evidence-based best practice'



<http://www.rightpath.solutions>

RightPath

Home Feedback The Team Resources Contact Us 

RightPath: a new model of care for children and young people



RightPath is a novel model of care to triage children and young people with musculoskeletal presentations in the community; the aim is to facilitate referral to the appropriate clinicians - either referral to hospital based care or to community based clinicians. RightPath was developed and evaluated in the UK by a multi-professional partnership of clinical academics, social scientists, primary and community care doctors, nurses, physiotherapists, podiatrists along with paediatric specialist doctors and health care managers. The organisations involved were Newcastle University, UK, Pennine MSK (Oldham, UK) and South Tyneside NHS Foundation Trust, UK.

RightPath

Home Feedback The Team **Resources** Contact Us 

 **Resources Implementation**

Here we include the triage guidance (creative open license in PDF format) and monthly newsletters

[View Resources](#)

 **Resources Education and Training**

Here you will find examples of case based workshops for triage teams and some sample triage letters.
Coming soon!

[View Resources](#)

 **Resources Evaluation**

Here we include proformas for feedback.

[View Resources](#)

 **E-Platform**

Introduction to Paediatric Musculoskeletal Clinical Skills - pGALS

Paediatric Musculoskeletal Medicine in Primary Care - A Guide for GPs

The Child with Fever - Infection or not?

[View E-Platform](#)

 **PMM Pages**

View pages from the PMM website found most useful by the RightPath triage team.

[View Pages](#)

 **RightPath Outputs**

A publication describing RightPath is currently being prepared for peer review and will appear here soon.

[View Resources](#)

RightPath

FLAT FEET

Usually suitable for RightPath. Specialist opinion in the first instance may not be needed.

Consider referral if any of the below are identified, either from letter or after assessment.

- The child is under six years of age and no red flags
- Mobile flat foot (i.e. the medial longitudinal arch forms normally when the child stands on tip toe, or when the big toes are passively extended)
- Absent medial longitudinal arch when child stands on tip toes or when big toes are extended (i.e. non-mobile flat feet / foot)
- Asymmetrical changes (i.e. one foot fixed and flat)

RightPath

MUSCULOSKELETAL TRIAGE GUIDANCE FOR CHILDREN AND YOUNG PEOPLE

RED FLAGS

DIRECT TO A&E Suspected Slipped Upper Femoral Epiphysis (SUEF). Hip, groin, distal thigh pain in 10-16 year olds should always be regarded as potential SUEF. Leg pain on weight bearing with pain on passive hip movements are signs of SUEF
RED FLAGS - Discuss with senior clinician / urgent referral / 2-week potential cancer pathway
RHEUMATOLOGY REFERRAL Suspected inflammatory arthritis - Joint swelling, early morning stiffness and pain, systemic illness and motor milestone regression
PAEDIATRIC REFERRAL Suspected NAI Suspected neurological problem (including fits, fits of unknown cause, developmental changes) bowel or bladder problems, milestones delay / failure to thrive. Persistent fever through night, loss of appetite, chronic illnesses, headaches, +/- nausea/vomiting
ORTHOPAEDIC REFERRAL Limping Child (not suspected to be SUEF). Back problems (pain, scoliosis, neurological symptoms, systemic illness)

<http://www.rightpath.solutions>

RightPath

Home Feedback The Team Resources Contact Us

RightPath: a new model of care for children and young people

RightPath is a novel model of care to triage children and young people with musculoskeletal presentations in the community; the aim is to facilitate referral to the appropriate clinicians - either referral to hospital based care or to community based clinicians. RightPath was developed and evaluated in the UK by a multi-professional partnership of clinical academics, social scientists, primary and community care doctors, nurses, physiotherapists, podiatrists along with paediatric specialist doctors and health care managers. The organisations involved were Newcastle University, UK, Pennine MSK (Oldham, UK) and South Tyneside NHS Foundation Trust, UK.

RightPath

Home Feedback The Team Resources Contact Us

Resources Implementation

Here we include the triage guidance (creative open license in PDF format) and monthly newsletters

[View Resources](#)

Resources Education and Training

Here you will find examples of case based workshops for triage teams and some sample triage forms. Coming soon!

[View Resources](#)

Resource Evaluation

Here we include proformas for feedback.

[View Resources](#)

E-Platform

Introduction to Paediatric Musculoskeletal Clinical Skills - pGALS
Paediatric Musculoskeletal Medicine in Primary Care - A Guide for GPs
The Child with Fever - Infection or not?

[View E-Platform](#)

PMM Pages

View pages from the PMM website found most useful by the RightPath triage team.

[View Pages](#)

RightPath Outputs

A publication describing RightPath is currently being prepared for peer review and will appear here soon.

[View Resources](#)

Newcastle University

About Courses FAQs Contact

Short Online Courses from Newcastle University

[cpd.ncl.ac.uk](#)

[View All Courses](#)

<http://www.rightpath.solutions>

RightPath

Home Feedback The Team Resources Contact Us 



RightPath: a new model of care for children and young people

RightPath is a novel model of care to triage children and young people with musculoskeletal presentations in the community; the aim is to facilitate referral to the appropriate clinicians - either referral to hospital based care or to community based clinicians. RightPath was developed and evaluated in the UK by a multi-professional partnership of clinical academics, social scientists, primary and community care doctors, nurses, physiotherapists, podiatrists along with paediatric specialist doctors and health care managers. The organisations involved were Newcastle University, UK, Pennine MSK (Oldham, UK) and South Tyneside NHS Foundation Trust, UK.

RightPath

Home Feedback The Team Resources Contact Us 

 **Resources Implementation**

Here we include the triage guidance (creative open license in PDF format) and monthly newsletters

[View Resources](#)

 **Resources Education and Training**

Here you will find examples of case based workshops for triage teams and some sample triage letters.
Coming soon!

[View Resources](#)

 **Resources Evaluation**

Here we include proformas for feedback.

[View Resources](#)

 **E-Platform**

Introduction to Paediatric Musculoskeletal Clinical Skills - pGALS
Paediatric Musculoskeletal Medicine in Primary Care - A Guide for GPs
The Child with Fever - Infection or not?

[View E-Platform](#)

 **PMM Pages**

View pages from the PMM website found most useful by the RightPath triage team.

[View Pages](#)

 **RightPath Outputs**

A publication describing RightPath is currently being prepared for peer review and will appear here soon.

[View Resources](#)

Doctors & Clinicians  [log in/register](#) 



pmm
Paediatric Musculoskeletal Matters
INTERNATIONAL

Clinical Assessment   Children Differ From Adults      

Investigation     Resources

Understand | diagnose | change

Whether you are looking to learn more about paediatric musculoskeletal problems, or are involved in the care of children, then pmm and pmm-nursing will help you change your clinical practice for the better

[find out more about us >](#)

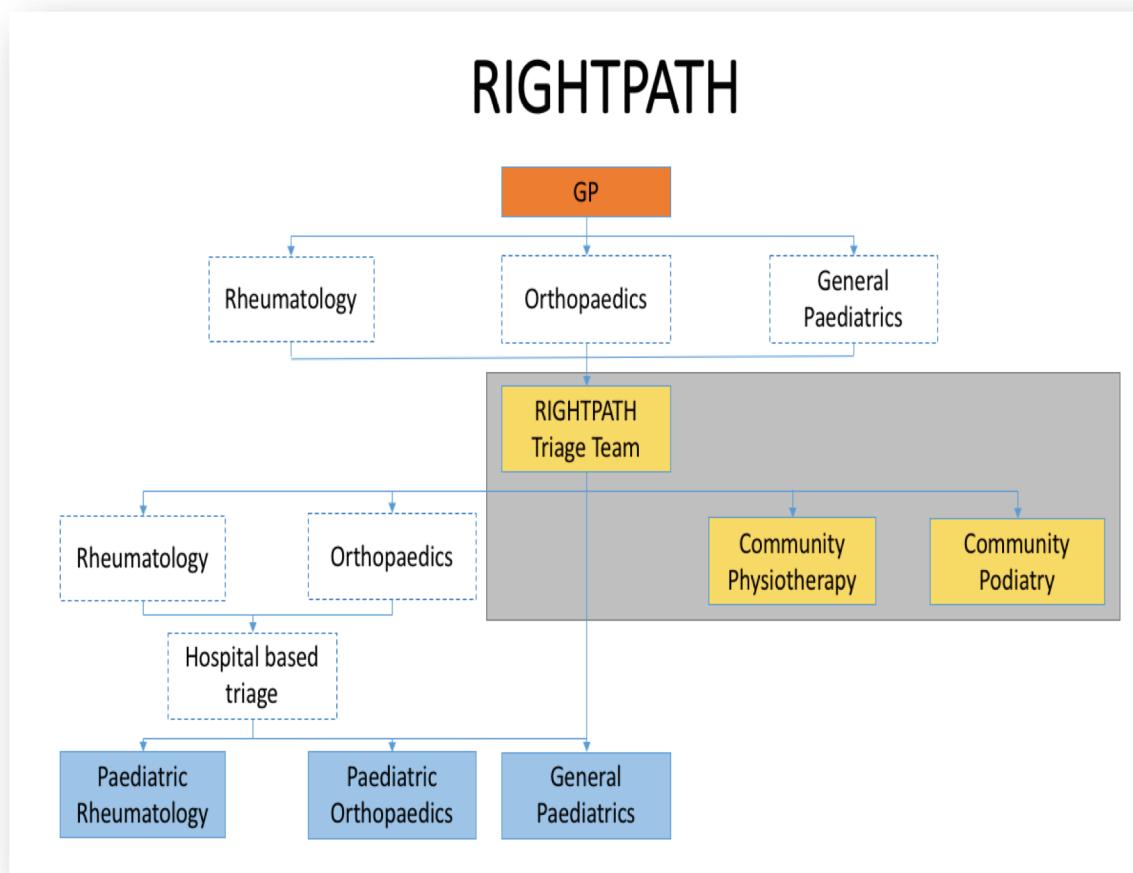
Welcome to pmm-international
pmm-international is for all clinicians who may encounter children with musculoskeletal problems and aims to raise awareness, knowledge and clinical skills to facilitate early

Site Statistics
To date (end of February 2019) pmm has >451,000 hits and >163,000 users from 209

<http://www.rightpath.solutions>



<http://www.rightpath.solutions>



A new model of musculoskeletal triage for children in the community

Smith N, Firth J, Kinsey K, Snowden N, McNaught J, Mercer V, Jandial S, Nye A, Foster HE