

## Iron deficiency anemia: online methods of patient education

<sup>1</sup>Sorin Crişan, <sup>2</sup>Ştefan Vesa, and <sup>3</sup>Doiniţa Crişan

<sup>1</sup>5<sup>th</sup> Medical Clinic, „Iuliu Haţieganu” University of Medicine and Pharmacy Cluj-Napoca, România; <sup>2</sup>Department of Internal Medicine, Municipal Hospital, Cluj-Napoca, Romania; <sup>3</sup>Department of Pathology, „Iuliu Haţieganu” University of Medicine and Pharmacy Cluj-Napoca, Romania. Corresponding author: S. Crişan, crisan.sorin@gmail.com

**Abstract.** The authors present some of the most important online patient education methods in English on iron deficiency anemia (easy-to-read articles, information leaflets, easy-to-understand fact sheets, newsletters, patient page, glossaries, frequently asked questions, quizzes, forums, blogs, and patient stories).

**Keywords:** patient education, iron deficiency anemia.

**Introduction.** Iron deficiency and iron deficiency anemia are some of the most important health problems. Moreover, these conditions are underdiagnosed and undertreated. Patients can be informed about all aspects of these diseases by accessing numerous websites. These online resources are provided by international organizations, government agencies, national institutes and organizations, scientific societies, universities of medicine, regional hospitals, health foundations, other healthcare providers, medical journals with patient pages, councils of experts, patient portals supported by professional associations, medical information websites, and free content online encyclopedias.

Patients can easily learn if they read carefully the answers to questions like those that follow: Is iron deficiency the same thing as anemia?; What is anemia? What causes iron deficiency anemia?; What are the symptoms of anemia? What tests might my doctor perform to determine if I have anemia?; Do you know your hemoglobin or hematocrit level?; Who needs iron supplements?

There are a lot of methods of online patient education (easy-to-read articles, leaflets, handouts, fact sheets, patient pages, dictionaries and glossaries, frequently asked questions, questions to be addressed to doctors, newsletters, self-quizzes, symptoms checklists, explanations of laboratory tests results, clinical trials, forums and group discussions, blogs, and patient stories). Some of the patient education methods, as the glossaries, disease-oriented patient pages, fact sheets, and handouts, are simple and effective learning tools. The patient-level articles are much more sophisticated. These large documents with several pages provide high-quality information and help patients to make informed decisions. Some examples of each category are listed below.

### Easy-to-read Articles

- <http://en.wikipedia.org/> Wikipedia, the free encyclopedia > Search > Iron deficiency anemia (or [http://en.wikipedia.org/wiki/Iron\\_deficiency\\_anemia](http://en.wikipedia.org/wiki/Iron_deficiency_anemia) - website accessed on December 19, 2010)

- <http://hematologic.niddk.nih.gov/> National Hematologic Diseases Information Service, a service of the National Institute of Diabetes and Digestive and Kidney Diseases > Hematologic Diseases > Iron-Deficiency Anemia (from NHLBI) (or [http://www.nhlbi.nih.gov/health/dci/Diseases/ida/ida\\_what.html](http://www.nhlbi.nih.gov/health/dci/Diseases/ida/ida_what.html) - website accessed on December 27, 2010)
- <http://kidshealth.org/> KidsHealth.org<sup>®</sup>, part of The Nemours Foundation's Center for Children's Health Media > KidsHealth > Parents site (for Parents – Practical parenting information and news) > Medical Problems > Heart & Blood Vessels > Iron-Deficiency Anemia (or <http://kidshealth.org/parent/medical/heart/ida.html> - website accessed on December 19, 2010)
- <http://www.anemia.org/> National Anemia Action Council > Patients & Consumers > Patient Resources > Feature Articles for Patients > A Patient's Guide to Oral Iron Supplements (November 2008) <http://www.anemia.org/patients/feature-articles/content.php?contentid=000316&sectionid=00015>; Monitoring Inflammation and Iron Deficiency Anemia in Rheumatoid Arthritis (February 2009) <http://www.anemia.org/patients/feature-articles/content.php?contentid=000359&sectionid=00015>; What is Anemia: Reporting Symptoms and Finding a Cause (May 2009) <http://www.anemia.org/patients/feature-articles/content.php?contentid=000390&sectionid=00015>; Are iron Injections Right for You? (June 2009) <http://www.anemia.org/patients/feature-articles/content.php?contentid=000403&sectionid=00015>; Treating Anemia with Red Blood Cell Transfusions (January 2010) <http://www.anemia.org/patients/feature-articles/content.php?contentid=000482&sectionid=00015> (website accessed on December 26, 2010)
- <http://www.aurorahealthcare.org> Aurora Health Care<sup>®</sup>, WI > Health Info > Condition finder > Conditions > I > Iron - deficiency anemia (or <http://www.aurorahealthcare.org/yourhealth/healthgate/getcontent.asp?URLhealthgate=%2211740.html%22> - website accessed on December 27, 2010)
- <http://www.betterhealth.vic.gov.au/> Better Health Channel State Government of Victoria, Australia > Conditions & Treatments > Health conditions > by A - Z of conditions > I > Iron deficiency - adults (or [http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Iron\\_deficiency\\_adults?open](http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Iron_deficiency_adults?open) - website accessed on December 27, 2010)
- <http://www.bupa.co.uk/> Bupa Insurance Limited > Individuals > Health Information > I > iron - deficiency anaemia > Information (or <http://www.bupa.co.uk/individuals/health-information/directory/i/anaemia-iron> - website accessed on December 27, 2010)
- <http://www.capitalhealth.ca/> Alberta Health Services (Edmonton and area) > Your Health > Search within Your Health > Browse Alphabetically > I > Iron Deficiency Anemia > Iron for Your Health (website accessed on December 26, 2010)
- <http://www.cdc.gov/> Centers for Disease Control and Prevention > Diseases & Conditions > Diseases & Conditions A-Z Index > A > Anemia > Iron and Iron Deficiency (or <http://www.cdc.gov/nutrition/everyone/basics/vitamins/iron.html> - website accessed on December 26, 2010)
- <http://www.clevelandclinic.org/> The Cleveland Clinic, Ohio > Health Information > Find Health Information by all Topics A - Z > I > Iron Deficiency Anemia (or [http://my.clevelandclinic.org/disorders/Anemia/hic\\_Anemia.aspx](http://my.clevelandclinic.org/disorders/Anemia/hic_Anemia.aspx) - website accessed on December 27, 2010)
- <http://www.eatwell.gov.uk/> Food Standards Agency > Health issues > Iron deficiency (or <http://www.eatwell.gov.uk/healthissues/irondeficiency/> - website accessed on December 27, 2010)

- <http://www.familydoctor.org/> American Academy of Family Physicians > Conditions A to Z > I > Iron Deficiency Anemia in Infants and Children: How to Prevent it? (or <http://familydoctor.org/online/famdocen/home/children/parents/kidshealthy/nutrition/751.html> - website accessed on December 19, 2010)
- <http://www.healthinaging.org/> The AGS (American Geriatrics Society) Foundation for Health in Aging New York, NY > Public Education > Public Education Resources > Information > Elder Health at Your Fingertips > The Heart, Lungs, and Blood and Circulation > Anemia and Other Blood Disorders > Anemia (or [http://www.healthinaging.org/agingintheknow/chapters\\_ch\\_trial.asp?ch=52#anemia](http://www.healthinaging.org/agingintheknow/chapters_ch_trial.asp?ch=52#anemia) - website accessed on December 27, 2010)
- <http://www.healthline.com/> Healthline Networks, Inc > Health A to Z > Diseases A to Z > View all Diseases and Conditions A to Z > I > Iron deficiency anemia (or <http://www.healthline.com/adamcontent/iron-deficiency-anemia> - website accessed on December 27, 2010)
- <http://www.hematology.org/> American Society of Hematology > Patients > Blood Disorders > Anemia > Common Types of Anemia > Iron - Deficiency Anemia (or <http://www.hematology.org/Patients/Blood-Disorders/Anemia/5263.aspx> - website accessed on December 27, 2010)
- <http://www.irondisorders.org/> Iron Disorders Institute Greenville, South Carolina > Iron Disorders > Iron Deficiency Anemia (or <http://www.irondisorders.org/iron-deficiency-anemia> - website accessed on December 27, 2010)
- <http://www.irondisorders.org/> > Iron Library – Resources > Reading Room > Articles > Blood Tests > Serum Ferritin – an important part of the iron pane (or <http://www.irondisorders.org/Websites/idi/Files/Content/828895/ST%20ferritin%20NOV%202010.pdf> - website accessed on December 27, 2010)
- <http://www.labtestsonline.org/> Lab Tests Online®, American Association for Clinical Chemistry > Conditions/Diseases > Anemia > Iron Deficiency (or <http://www.labtestsonline.org/understanding/conditions/anemia-2.html> (website accessed on December 26, 2010)
- <http://www.largomedical.com/> Largo Medical Center West Florida, FL > Health Information > Health Library > I > Iron - Deficiency Anemia (or [http://largomedical.com/your-health/condition\\_detail.dot?id=11740&crumbTitle=Iron-Deficiency%20Anemia](http://largomedical.com/your-health/condition_detail.dot?id=11740&crumbTitle=Iron-Deficiency%20Anemia) - website accessed on December 27, 2010)
- <http://www.mamashealth.com/> Mama's Health, Inc, Pasadena, CA > Blood Diseases > Iron Deficiency Anemia (or <http://www.mamashealth.com/nutrition/anemia.asp> - website accessed on December 27, 2010)
- <http://www.massgeneral.org/> Massachusetts General Hospital, Boston, MA > Conditions & Treatments > View by Medical Category > Blood (hematology) > I > Iron - Deficiency Anemia (or <http://www.massgeneral.org/conditions/condition.aspx?ID=255&type=conditions> - website accessed on December 27, 2010)
- <http://www.mayoclinic.com/> Mayo Foundation for Medical Education and Research > Health Information > Diseases & Conditions A-Z > I > Iron deficiency anemia (or <http://www.mayoclinic.com/health/iron-deficiency-anemia/DS00323> - website accessed on December 26, 2010)
- <http://www.med.umich.edu/> University of Michigan Health System Ann Arbor, MI > Health Topics A – Z > Health Topics by Category > I > Iron Deficiency Anemia ( Article 05/07/2007) - website accessed on December 27, 2010)
- <http://www.merckmanuals.com/> > Patients & Caregivers > The Merck Manual – Home Edition > Sections > Blood Disorders > Iron Deficiency Anemia (or <http://www.merckmanuals.com/home/sec14/ch172/ch172c.html> - website accessed on December 27, 2010)

- <http://www.nhlbi.nih.gov/> (US Department of Health & Human Services, National Institutes of Health (NIH) , National Heart, Lung, and Blood Institute (NHLBI) > Public > Blood Diseases > Anemia (or [http://www.nhlbi.nih.gov/health/dci/Diseases/anemia/anemia\\_what.html](http://www.nhlbi.nih.gov/health/dci/Diseases/anemia/anemia_what.html) website accessed on December 19, 2010)
- <http://www.nlm.nih.gov/medlineplus/> or <http://www.medlineplus.gov/> MedlinePlus® > Medical Encyclopedia > I > Iron deficiency anemia or <http://www.nlm.nih.gov/medlineplus/ency/article/000584.htm> (website accessed on December 19, 2010)
- <http://www.nutrition.org.uk/> British Nutrition Foundation > Nutrition science > Nutrients > Mineral and trace elements > Iron > Deficiency (or <http://www.nutrition.org.uk/nutritionscience/nutrients/minerals-and-trace-elements?start=8> - website accessed on December 27, 2010)
- <http://www.patientedu.org/> Pri – Med Patient Education Center, Harvard Medical School > Search Health Information > Iron Deficiency (or <http://www.patientedu.org/aspx/HealthELibrary/HealthETopic.aspx?cid=201970> - website accessed on December 28, 2010)
- <http://www.sutterhealth.org/> Sutter Health Northern California, CA > Health Information > Health Library > Browse by health topic > Blood & Lymphatic System > I > Iron Deficiency Anemia (or <http://www.sutterhealth.org/health/healthinfo/index.cfm?A=C&hwid=hw166953#hwTop> - website accessed on December 27, 2010)
- [http://www.telemedicine.arizona.edu/patient\\_info/benign\\_disorders/disorders/anemia.html](http://www.telemedicine.arizona.edu/patient_info/benign_disorders/disorders/anemia.html) Arizona Telemedicine Program, University of Arizona, Tucson, AZ (website accessed on December 28, 2010)
- <http://www.umm.edu/> University of Maryland Medical Center Baltimore, MD > Health Library > Medical References > English Medical Encyclopedia > I > Ir > Iron deficiency anemia (or <http://www.umm.edu/ency/article/000584.htm> - website accessed on December 27, 2010)
- <http://www.umm.edu/> > Health Library > Medical References > In – Depth Patient Education Reports > Articles > Anemia (or [http://www.umm.edu/patiented/articles/anemia\\_000057.htm](http://www.umm.edu/patiented/articles/anemia_000057.htm) - website accessed on December 27, 2010)
- <http://www.uptodate.com/> UpToDate, Inc. > For Patients > Search > Iron Deficiency Anemia > Patient information: Anemia caused by low iron (website accessed on December 27, 2010)
- <http://www.webmd.com/> Web MD > Health A-Z > A > Anemia (or <http://www.webmd.com/a-to-z-guides/understanding-anemia-basics> website accessed on December 19, 2010)
- <http://www.who.int/> World Health Organization > Health Topics > A > Anaemia > Iron deficiency anaemia or [http://www.who.int/WorldHealthOrganization/Programmesandprojects/N/Nutrition/Nutritiontopics/ReductionofMicronutrientmalnutrition\(MNM\)/Irondeficiencyanaemia\(IDA\)](http://www.who.int/WorldHealthOrganization/Programmesandprojects/N/Nutrition/Nutritiontopics/ReductionofMicronutrientmalnutrition(MNM)/Irondeficiencyanaemia(IDA)) (or <http://www.who.int/entity/nutrition/topics/ida/en/index.html> or <http://www.who.int/nutrition/topics/ida/en/index.html> - website accessed on December 27, 2010)

### Information Leaflets

- <http://www.cks.nhs.uk/> Clinical Knowledge Summaries, National Health Service, National Institute for Health and Clinical Excellence > Information for patients > All leaflets by subject > Haematology (blood, lymph) > Anemia, iron deficiency (or

- [http://www.cks.nhs.uk/patient\\_information\\_leaflet/anaemia\\_iron\\_deficiency](http://www.cks.nhs.uk/patient_information_leaflet/anaemia_iron_deficiency) - website accessed on December 27, 2010)
- [http://www.patient.co.uk/ Patient UK > Information for Patients > Information Leaflets > Iron Deficiency Anaemia](http://www.patient.co.uk/Patient%20UK%20Information%20for%20Patients%20Information%20Leaflets%20Iron%20Deficiency%20Anaemia) (or <http://www.patient.co.uk/health/Iron-Deficiency-Anaemia.htm> - website accessed on December 27, 2010)

### Handouts

- [http://www.anemia.org/ > Patients & Consumers > Patient Resources > Information Handouts > Iron Deficiency](http://www.anemia.org/Patients%20&%20Consumers%20Patient%20Resources%20Information%20Handouts%20Iron%20Deficiency) (or <http://www.anemia.org/patients/information-handouts/iron-deficiency/> - website accessed on December 26, 2010)

### Fact Sheets

- [http://www.irondisorders.org/ > Iron Library - Resources > Reading Room > Information Brochures > Anemia Fact Sheet](http://www.irondisorders.org/Iron%20Library%20Resources%20Reading%20Room%20Information%20Brochures%20Anemia%20Fact%20Sheet) (or <http://www.irondisorders.org/Websites/idi/Files/Content/854256/FAcTsAnemia.pdf> - website accessed on December 27, 2010)

### Patient Page

- <http://jama.ama-assn.org/content/292/5/648.full.pdf> JAMA (The Journal of the American Medical Association) Patient Page: Malnutrition in Children > Iron Deficiency. JAMA 2004;292(5):648 (website accessed on December 27, 2010)

### Dictionaries/ Glossaries

- [http://www.anemia.org/ > Patients & Consumers > Patient Resources > Anemia Glossary](http://www.anemia.org/Patients%20&%20Consumers%20Patient%20Resources%20Anemia%20Glossary) (or <http://www.anemia.org/patients/glossary/> - website accessed on December 26, 2010)
- [http://www.healthinaging.org/ > Public Education > Public Education Resources > Aging in the Know > Features > Glossary > I > Iron Deficiency](http://www.healthinaging.org/Public%20Education%20Public%20Education%20Resources%20Aging%20in%20the%20Know%20Features%20Glossary%20I%20Iron%20Deficiency) (or [http://www.healthinaging.org/agingintheknow/glossary/iron\\_deficiency.asp](http://www.healthinaging.org/agingintheknow/glossary/iron_deficiency.asp) - website accessed on December 27, 2010)
- [http://www.irondisorders.org/ > Iron Library - Resources > Getting Started > Glossary of Terms](http://www.irondisorders.org/Iron%20Library%20Resources%20Getting%20Started%20Glossary%20of%20Terms) (or <http://www.irondisorders.org/glossary-of-terms/> - website accessed on December 27, 2010)
- [http://www.nlm.nih.gov/medlineplus/ > Medical Dictionary > Search > Iron Deficiency](http://www.nlm.nih.gov/medlineplus/Medical%20Dictionary%20Search%20Iron%20Deficiency) (or <http://www.merriam-webster.com/medlineplus/iron%20deficiency> - website accessed on December 27, 2010)

### Frequently Asked Questions/Questions and Answers

- [http://www.anemia.org/ > Patients & Consumers > Patient Resources > Anemia FAQs > Iron Deficiency](http://www.anemia.org/Patients%20&%20Consumers%20Patient%20Resources%20Anemia%20FAQs%20Iron%20Deficiency) (or <http://www.anemia.org/patients/faq/#ida> - website accessed on December 26, 2010)
- [http://www.bupa.co.uk/ > Individuals > Health Information > I > iron - deficiency anaemia > Common questions](http://www.bupa.co.uk/Individuals%20Health%20Information%20I%20iron%20deficiency%20anaemia%20Common%20questions) (or <http://www.bupa.co.uk/individuals/health-information/directory/i/anaemia-iron> - website accessed on December 27, 2010)
- [http://www.capitalhealth.ca/ > Your Health > Search within Your Health > Browse Alphabetically > I > Iron Deficiency Anemia > Iron - Link FAQ Aug 2, 2008](http://www.capitalhealth.ca/Your%20Health%20Search%20within%20Your%20Health%20Browse%20Alphabetically%20I%20Iron%20Deficiency%20Anemia%20Iron%20Link%20FAQ) (or

[http://www.capitalhealth.ca/YourHealth/CHLink/FAQs/Archive2008/Question\\_Iron.htm](http://www.capitalhealth.ca/YourHealth/CHLink/FAQs/Archive2008/Question_Iron.htm) - website accessed on December 26, 2010)

- [http://www.healthinaging.org/public\\_education/pef/anemia.pdf](http://www.healthinaging.org/public_education/pef/anemia.pdf) > The Patient Education Forum (website accessed on December 27, 2010)
- <http://www.irondisorders.org/> > Iron Library – Resources > Learning More > FAQ's (or <http://www.irondisorders.org/frequently-asked-questions-faq/> - website accessed on December 27, 2010)
- <http://www.labtestsonline.org/> > Tests > Serum Iron > Common Questions (or [http://www.labtestsonline.org/understanding/analytes/serum\\_iron/faq.html](http://www.labtestsonline.org/understanding/analytes/serum_iron/faq.html) - website accessed on December 26, 2010)

### **Questions for Healthcare Providers**

- <http://www.healthinaging.org/> > Public Education > Public Education Resources > Aging in the Know > Features > What to Ask? (Questions for Your Healthcare Provider) > Elder Health at Your Fingertips > The Heart, Lungs, and Blood and Circulation > Anemia and Other Blood Disorders (or [http://www.healthinaging.org/agingintheknow/questions\\_ch\\_trial.asp?ch=52](http://www.healthinaging.org/agingintheknow/questions_ch_trial.asp?ch=52) - website accessed on December 27, 2010)
- <http://www.labtestsonline.org/> > Tests > Serum Iron > Ask us (or [http://www.labtestsonline.org/understanding/analytes/serum\\_iron/ask.php](http://www.labtestsonline.org/understanding/analytes/serum_iron/ask.php) - website accessed on December 26, 2010)

### **Patient Newsletters**

- <http://www.hematology.org/> > Patients > Patient Newsletter (or <http://www.hematology.org/Patients/5654.aspx> - website accessed on December 27, 2010)
- <http://www.irondisorders.org/> > Iron Library – Resources > Getting Started > Our Newsletter (or <http://www.irondisorders.org/newsletter/> - website accessed on December 27, 2010)

### **Self-quizzes**

- <http://www.anemia.org/> > Patients & Consumers > Patient Resources > Symptoms Quiz (or <http://www.anemia.org/patients/symptoms-quiz/> - website accessed on December 26, 2010)
- <http://www.dialysispatients.org/tools-managing-your-anemia> Dialysis Patient Citizens, Inc. (website accessed on December 28, 2010)

### **Symptoms Checklists**

- <http://www.irondisorders.org/> > Iron Library – Resources > Reading Room > Information Brochures > Symptoms Log [http://www.irondisorders.org/Websites/idi/Files/Content/854256/Symptoms\\_checklist2009.pdf](http://www.irondisorders.org/Websites/idi/Files/Content/854256/Symptoms_checklist2009.pdf) - website accessed on December 27, 2010)

### **Personal Health Profile (Lab Tests Results)**

- <http://www.irondisorders.org/> > Iron Library – Resources > Reading Room > Information Brochures > Personal Health Profile (or <http://www.irondisorders.org/Websites/idi/Files/Content/854256/PHP2009.pdf> - website accessed on December 27, 2010)

## Joining a Clinical Trial

- <http://www.clinicaltrials.gov/> ClinicalTrials.gov, U.S. National Institutes of Health > Search for Clinical Trials > Iron Deficiency (website accessed on December 26, 2010). Trials currently recruiting participants:
- Bovine Lactoferrin to Prevent and Cure Iron Deficiency and Iron Deficiency Anemia in Complicated Pregnancies. Official Title: Phase IV Study of Oral Administration of Bovine Lactoferrin (bLf) to Prevent and Cure Iron Deficiency (ID) and Iron Deficiency Anemia (IDA) Until Delivery in Hereditary Thrombophilia (HT) Affected Pregnant Women. Rome, Italy (NCT01221844).
- Ferumoxytol Compared to Iron Sucrose for the Treatment of Iron Deficiency Anemia in Adult Subjects With Chronic Kidney Disease (FIRST). Official Title: Ferumoxytol Compared to Iron Sucrose Trial (FIRST): A Randomized, Multicenter, Trial of Ferumoxytol Compared to Iron Sucrose for the Treatment of Iron Deficiency Anemia in Adult Subjects With Chronic Kidney Disease. Massachusetts, United States (NCT01052779).
- Ferumoxytol for the Episodic Treatment of Iron Deficiency Anemia. Official Title: A Phase III, Open-Label Extension Trial of the Safety and Efficacy of Ferumoxytol for the Episodic Treatment of Iron Deficiency Anemia. Massachusetts, United States (NCT01114217).
- A Trial of Iron Replacement in Patients With Iron Deficiency. Official Title: A Randomised Controlled Trial Comparing the Efficacy of Intravenous Iron Sucrose and Oral Iron Sulfate in Patients With Iron Deficiency. Alberta, Canada (NCT01067547).
- A Trial of Ferumoxytol for the Treatment of Iron Deficiency Anemia. Official Title: A Phase III, Randomized, Double-Blind, Placebo Controlled Trial of Ferumoxytol for the Treatment of Iron Deficiency Anemia. Massachusetts, United States (NCT01114139).
- Maintenance Treatment of Iron Deficiency in IBD Patients (FER-IBD-MAIN). Official Title: A Multi-centre, Randomised, Prospective, Single-blinded, Controlled Study to Investigate the Efficacy and Safety of a Standardised Maintenance Dosage Regimen of Intravenous Ferric Carboxymaltose (FERINJECT®) Versus Placebo in Patients With Iron Deficiency Caused by Inflammatory Bowel Disease. Moscow, Russian Federation (NCT00810004).
- Ferric Carboxymaltose Assessment in Subjects With Iron Deficiency Anaemia and Non-dialysis-dependent CKD (FIND-CKD). Official Title: An Open-label, Multicentre, Randomised, 3-arm Study to Investigate the Comparative Efficacy and Safety of IV Ferric Carboxymaltose Versus Oral Iron for Treatment of Iron Deficiency Anaemia in Subjects With Non-dialysis-dependent CKD. 18 Study Locations (NCT00994318).
- Efficacy and Safety of Intravenous Ferric Carboxymaltose (FCM) in Patients With Iron Deficiency Anemia (IDA). Official Title: A Multi-center, Randomized, Active Controlled Study to Investigate the Efficacy and Safety of Intravenous Ferric Carboxymaltose (FCM) in Patients With Iron Deficiency Anemia (IDA). Pennsylvania, United States (NCT00982007).
- Comparative Efficacy and Safety of Intravenous Ferric Carboxymaltose (FCM) Versus Oral Iron for Iron Deficiency Anaemia in Pregnant Women (ASAP). Official Title: An Open-label, Multicentre, Randomised, 2-arm Study to Investigate the Comparative Efficacy and Safety of Intravenous Ferric Carboxymaltose Versus Oral Iron for the Treatment of Iron Deficiency Anaemia in Pregnant Women. Berlin and Marburg, Germany (NCT01131624).

## Forums

- <http://www.healthboards.com/> HealthBoards.com™ > Message Boards > Anemia (or <http://www.healthboards.com/boards/forumdisplay.php?f=14> - website accessed on December 27, 2010)
- <http://www.revolutionhealth.com/> Revolution Health, Everyday Health, Inc. > Community > Forums > Explore community > All communities > I > Iron-deficiency anemia (or <http://www.revolutionhealth.com/forums/anemia/iron-deficiency-anemia> - website accessed on December 27, 2010)
- <http://www.revolutionhealth.com/> > Search > Anemia associated with iron deficiency > Questions (website accessed on December 27, 2010)

## Group Discussions

- <http://www.experienceproject.com/> Experience Project, Inc. Featured Groups <http://www.experienceproject.com/groups/Have-Anemia/26949> (website accessed on December 27, 2010)
- <http://www.irondisorders.org/> > Iron Library – Resources > Learning More > Online Discussion Group (or <http://www.irondisorders.org/online-discussion-group/> - website accessed on December 27, 2010)
- <http://www.revolutionhealth.com/> > Search > Anemia associated with iron deficiency > Groups > Iron – builders (or <http://www.revolutionhealth.com/groups/iron-builders> (website accessed on December 27, 2010)

## Blog Postings

- <http://www.irondisorders.org/> > Iron Blog (or <http://www.irondisorders.org/iron-blog> - website accessed on December 27, 2010)
- <http://www.revolutionhealth.com/>. > Community > Blogs > Search > Anemia (or <http://www.revolutionhealth.com/> > Search > Anemia associated with iron deficiency > Blogs (website accessed on December 27, 2010)
- <http://helplibrary.blogspot.com/2009/11/anemiadoc.html> Health Education Library for People (website accessed on December 28, 2010)

## Patient Stories

- <http://www.irondisorders.org/> > Iron Library – Resources > Getting Started > Patient Stories > Tell Us Your Story (or <http://www.irondisorders.org/patient-stories/> - website accessed on December 27, 2010)
- <http://www.revolutionhealth.com/> > Search > Anemia associated with iron deficiency > Personal stories (website accessed on December 27, 2010)

These online resources providing valuable health information about iron deficiency anemia are very useful for patients and the whole family.

## References

- \*\*\*<http://www.who.int/> World Health Organization (website accessed on January 03, 2011)
- \*\*\*<http://www.eatwell.gov.uk/> Food Standards Agency (website accessed on January 03, 2011)
- \*\*\*<http://www.nhlbi.nih.gov/> National Heart, Lung, and Blood Institute, National Institutes of Health, US Department of Health & Human Services (website accessed on January 03, 2011)



- \*\*\*<http://www.cdc.gov/> Centers for Disease Control and Prevention (website accessed on January 03, 2011)
- \*\*\*<http://www.hematology.org/> American Society of Hematology (website accessed on January 03, 2011)
- \*\*\*<http://www.umm.edu/> University of Maryland Medical Center Baltimore, MD (website accessed on January 03, 2011)
- \*\*\*<http://www.med.umich.edu/> University of Michigan Health System (website accessed on January 03, 2011)
- \*\*\*<http://www.massgeneral.org/> Massachusetts General Hospital, Boston, MA (website accessed on January 03, 2011)
- \*\*\*<http://www.healthinaging.org/> The American Geriatrics Society Foundation for Health in Aging (website accessed on January 04, 2011)
- \*\*\*<http://www.mayoclinic.com/> Mayo Foundation for Medical Education and Research (website accessed on January 04, 2011)
- \*\*\*<http://www.nutrition.org.uk/> British Nutrition Foundation (website accessed on January 04, 2011)
- \*\*\*<http://www.aurorahealthcare.org> Aurora Health Care® (website accessed on January 04, 2011)
- \*\*\*<http://www.largomedical.com/> Largo Medical Center West Florida (website accessed on January 04, 2011)
- \*\*\*<http://jama.ama-assn.org/> JAMA (The Journal of the American Medical Association) (website accessed on January 04, 2011)
- \*\*\*<http://www.anemia.org/> National Anemia Action Council (website accessed on January 04, 2011)
- \*\*\*<http://www.familydoctor.org/> American Academy of Family Physicians (website accessed on January 04, 2011)
- \*\*\*<http://www.labtestsonline.org/> American Association for Clinical Chemistry (website accessed on January 04, 2011)
- \*\*\*<http://www.patient.co.uk/> Patient UK (website accessed on January 03, 2011)
- \*\*\*<http://www.webmd.com/> Web MD (website accessed on January 04, 2011)
- \*\*\*<http://en.wikipedia.org/> Wikipedia, the free encyclopedia (website accessed on January 04, 2011)
- \*\*\*[http://www.labtestsonline.org/understanding/analytes/serum\\_iron/faq.html](http://www.labtestsonline.org/understanding/analytes/serum_iron/faq.html) (website accessed on December 26, 2010)
- \*\*\*<http://www.anemia.org/patients/information-handouts/iron-deficiency/> (website accessed on December 26, 2010)
- \*\*\*<http://www.anemia.org/patients/faq/> (website accessed on December 26, 2010)
- \*\*\*<http://www.anemia.org/patients/symptoms-quiz/> (website accessed on December 26, 2010)

Received: 04 January 2011. Accepted: 26 January 2011. Published online: 26 January 2011.

Authors:

Sorin Crişan, 5<sup>th</sup> Medical Clinic, „Iuliu Haţieganu” University of Medicine and Pharmacy, Tăbăcarilor Street, no. 11, 400139, Cluj-Napoca, Cluj, Romania, EU, crisan.sorin@gmail.com

Ştefan Cristian Vesa, “Iuliu Haţieganu” University of Medicine and Pharmacy, Emil Isac Street, no 13, 400023, Cluj-Napoca, Cluj, Romania, EU, stefanvesa@gmail.com

Doiniţa Crişan, “Iuliu Haţieganu” University of Medicine and Pharmacy, Emil Isac Street, no 13, 400023, Cluj-Napoca, Cluj, Romania, EU, dcrisan@umfcluj.ro

How to cite this article:

Crişan S., Vesa Ş. C., Crişan D., 2011 Iron deficiency anemia: online methods of patient education. HVM Bioflux **3**(1):5-13.